Department of Energy
Washington, DC 20585

JAN 19 2001

The Honorable David R. Obey
Ranking Minority Member
Committee on Appropriations
U.S. House of Representatives
Washington D.C. 20515

Dear Congressman Obey:

Enclosed is the Department of Energy's "Plan for Transport Cask Fabrication and Deployment of Waste Acceptance Capabilities." This Plan was developed as directed by the report from the House Committee on Appropriations to accompany the Energy and Water Development Appropriations Act, 2001, P. L. 106-377, House Report.

As further directed by the Committee, the Plan was developed after consultation with affected contract holders. Comments received from contract holders are appended to the Plan.

If you have any questions regarding this Plan, please contact me at 202-586-6842 or have your staff contact Nick Chumbris, Director of the Office Congressional Liaison, at 202-586-2777.

Sincerely,

Ivan Itkin, Director
Office of Civilian Radioactive
Waste Management

Enclosure: As stated

Identical transmittal letters were sent to the Chairmen of the Committees on Appropriations of the U.S. Senate and House of Representatives and to the Ranking Minority member of the U.S. Senate Committee on Appropriations.

U.S. DEPARTMENT OF ENERGY

OFFICE OF CIVILIAN RADIOACTIVE WASTE MANAGEMENT

REPORT TO THE COMMITTEES ON APPROPRIATIONS

PLAN FOR TRANSPORTATION CASK FABRICATION AND THE DEPLOYMENT OF WASTE ACCEPTANCE CAPABILITIES

JANUARY 2001

Executive Summary

This Plan was prepared by the Office of Civilian Radioactive Waste Management on behalf of the Secretary of Energy in response to direction from the House Committee on Appropriation on the Energy and Water Development Appropriations Act, 2001. The Plan provides the Department of Energy strategy for the timely fabrication of transportation casks and deployment of waste acceptance capabilities.

The Department's Plan builds on the successful transportation experience gained in its current radioactive materials shipping campaigns as well as recent private sector advances in the design, certification and manufacture of efficient spent nuclear fuel transportation technology. It provides sufficient time for detailed logistics and acquisition planning and mobilizing the manufacturing capabilities, technical resources and equipment necessary to assure performance of the Department's waste acceptance mission.

The Department's Plan for the timely fabrication and deployment of waste acceptance capabilities is embodied in the Draft Request For Proposal "Acquisition of Waste Acceptance and Transportation Services for the Office of Civilian Radioactive Waste Management."[1] The strategy adopted for this draft solicitation was structured to make maximum use of private industry capabilities as mandated by the Nuclear Waste Policy Act, as amended.[2] The Department believes that current industry performance has shown that manufacturing capacity is available to meet present and future cask fabrication needs and that private industry can ensure the timely provision of the necessary services and equipment required to fulfill the Office of Civilian Radioactive Waste Management waste acceptance mission objectives at competitive fixed prices and fixed rates. This approach was developed with contract holders' input, along with input from equipment fabricators, vendors and transporters, and a limited number of State and industry representatives.

A consultation draft Plan was distributed to the contract holders to review and provide comments on the Plan. A section has also been added to the Plan to discuss the contract holders' comments. Comments received were both general and specific and where appropriate, specific elements of this Plan have been changed to address the comments. Some of the comments involved issues related to the Standard Contract and the Department's waste acceptance obligation, which are the subject of ongoing negotiation or litigation between contract holders and the Department and, therefore, were not addressed in this Plan. A sample copy of the letter to the contract holders and all of the comments that the Department received are provided as Appendix C to this Plan.

The Department has been focusing its efforts on site characterization activities at Yucca Mountain, Nevada to determine if this site is suitable for further development as a geologic repository. Due to funding constraints, the Department has prioritized its scientific and engineering activities on timely completion of site characterization. If the site is recommended by the President and approved by

[1] Draft RFP number DE-RE-98RW00320, Acquisition of Waste Acceptance and Transportation Services for the Office of Civilian Radioactive Waste Management, September 1998.

[2] NWPA section 137(a)(2).

Congress, the Department intends to implement this Plan, updated as necessary, to acquire and deploy the transportation infrastructure in a manner that will allow for timely waste acceptance.

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1. Introduction:

This Plan provides the Department's strategy for the timely fabrication of transportation casks and deployment of waste acceptance capabilities. The Plan has been prepared by the Office of Civilian Radioactive Waste Management (OCRWM) on behalf of the Secretary of Energy in response to direction in the report of the House Committee on Appropriations (H.R. Rep. No. 106-693, at 98 (2000)) on the Energy and Water Development Appropriations Act, 2001 (Pub. L. 106-377).

The Committee report specifically states the following:

> *Waste acceptance and transportation* - The Committee is concerned about the steady erosion of Administration support for activities associated with the waste acceptance and transportation functions of the Office of Civilian Radioactive Waste Management. The Department needs to demonstrate its ability to remove spent fuel from utility sites for Federal management, and, in particular, its commitment to the timely removal of spent fuel. Accordingly, the Department should submit to the Committee by December 31, 2000, a Plan for the timely fabrication and deployment of waste acceptance capabilities. The Plan should be developed after consultation with affected contract holders and consider currently licensed transportation systems and other transportation.

2. Background and Experience

The Department has safely and successfully transported highly radioactive materials, including spent nuclear fuel, for many years and has gained substantial experience in the operational and institutional aspects of nuclear materials transportation.

In 1999, the Department began a major transportation program to support disposal of transuranic waste at the Waste Isolation Pilot Plant (WIPP). Over 100 shipments have been successfully completed. This activity will span decades over which transuranic waste will be shipped to WIPP from 23 sites located throughout the country.

In May 1996, the Department of Energy, in cooperation with the U.S. State Department, initiated a program under which spent nuclear fuel and target material at research reactors in 41 countries, containing uranium that was enriched in the United States, could be shipped to two DOE facilities, the Savannah River Site (SRS) and the Idaho National Engineering and Environmental Laboratory (INEEL), for management pending permanent disposition. This program supports the U.S. nonproliferation objective to reduce and eventually eliminate highly enriched uranium in civil commerce. The spent nuclear fuel is entering the United States through the Charleston Naval Weapons Station in Charleston, South Carolina and the Concord Naval Weapons Station in Concord, California. To date, 18 shipments have been successfully completed, 15 to SRS and three to INEEL. Through these efforts a set of practices, developed in cooperation with states along the shipping routes, have been adopted to permit the safe predictable movement of such materials. Many of these operational protocols have been adapted and integrated into the Department's plans to acquire transportation services for shipments of spent nuclear fuel to a geologic repository.

Additionally, the Naval Nuclear Propulsion program has safely transported spent nuclear fuel within the United States for decades. That program shipped 719 cask loads between 1957 and 1999. The fuel is now stored temporarily at the INEEL awaiting permanent disposal in a geologic repository.

Within the U.S. nuclear industry, spent nuclear fuel has been transported for decades. From 1964 to 1997, there were 2426 highway shipments and 301 railway shipments. Of the thousands of shipments completed over the last 30 years, none has resulted in an identifiable injury through release of radioactive material.[3]

There is also extensive worldwide experience with spent nuclear fuel transportation. Over the last 25 years, more than 88,000 metric tonnes have been shipped safely by sea, highway, and rail. At least twelve countries have previously or are currently transporting spent nuclear fuel. These shipments are made in transportation casks designed to satisfy regulations derived from the same International Atomic Energy Agency safety standards that are the basis for U.S. regulations governing cask transportation in the United States. This international shipping experience represents a cumulative transportation experience base comparable to the transport needs for the Federal repository over its planned lifetime.

The Department of Energy program offices responsible for radioactive waste shipments work closely together. OCRWM, the office responsible for the repository shipments, participates in information exchanges and lessons learned as shipment campaigns are implemented to develop future plans for shipping to a geologic repository. For the last ten years, the Department has also been sharing this information with State, Tribal, and local representatives to ensure that they are knowledgeable of the Department's shipping practices and to receive their input on policy decisions regarding transportation of radioactive material through their jurisdictions. As the Department continues to expand its transportation experience base in the performance of its various missions, OCRWM will continue to incorporate the experience gained through these activities into its plans for transportation to and waste acceptance for a Federal repository.

3. Waste Acceptance Transportation Capabilities Deployment Plan

3.1 Strategy Formulation

The Department recognized from the onset of the OCRWM program that acquiring and establishing a transportation infrastructure would require long-lead times. This is primarily due to the scope of the shipping campaign required to transport the expected inventory of commercial spent nuclear fuel and the Department's high-level radioactive waste. The Department believes that utilizing a market based approach to establish this infrastructure will provide the most efficient and cost effective approach.

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[3] U.S. Nuclear Regulatory Commission, NUREG-0725, Rev.13, Public Information Circular for Shipments of Irradiated Reactor Fuel, October 1998.

Since the program's inception, significant attention has been given to both technical and institutional transportation issues. For example, the Department instituted a cask development program in 1985 in an effort to assure that more efficient, current generation casks reflecting the latest technology would be available to support the transportation mission. The Department has also participated in numerous technical and institutional exchanges and workshops to gain a more complete understanding of the issues involved with the operational aspects of the transport mission. These cask development efforts were curtailed as private sector cask vendors began offering very efficient transportable cask designs to meet the nuclear utility dry cask storage needs.

The private sector cask industry is currently providing equipment and services to utility customers in the United States (see Appendix A) and other countries with nuclear power plants. The various equipment and service vendors are developing new generation dual-purpose storage and transportation systems that have the improved efficiencies the Department desires for its waste acceptance and transportation needs. The private sector has longstanding and recent experience with spent nuclear fuel transportation and appears well positioned to respond to the Department's needs in fulfilling its transportation mission.

In 1996, OCRWM initiated an effort to formulate a new transportation strategy. OCRWM refocused its waste acceptance and transportation efforts to develop its current approach to provide the transportation capabilities required to meet its mission objectives[4]. This strategy, a market-based approach, was the basis of a Draft Request for Proposal (RFP), "Acquisition of Waste Acceptance and Transportation Services for the Office of Civilian Radioactive Waste Management."[5] The strategy utilizes private industry to the maximum extent feasible as mandated under the Nuclear Waste Policy Act (NWPA). One of the primary goals was to capitalize on the extensive experience and capabilities available in the private sector. Under this strategy, private industry would provide the services and equipment necessary to meet the Department's waste acceptance responsibilities identified in the NWPA and the Standard Contracts.[6]

This strategy builds on the recent private sector advances in efficient spent nuclear fuel transportation technology. That is, the design, certification and manufacture of high capacity transportable systems. Under this strategy, the Department plans to purchase services and equipment from contractors referred to as "Regional Servicing Contractors" (RSCs) that will perform waste acceptance and transportation functions. The Department would retain primary responsibility for interactions with the spent fuel owners and generators (contract holders). The Department would also be responsible for primary interactions with States, Tribes and local units of government to ensure consideration of their input on spent nuclear fuel

[4] DOE/RW-0520,Civilian Radioactive Waste Management Program Plan Revision 3, February 2000, U.S. Department of Energy Office of Civilian Radioactive Waste Management

[5] Draft RFP number DE-RE-98RW00320, Acquisition of Waste Acceptance and Transportation Services for the Office of Civilian Radioactive Waste Management, September 1998.

[6] 10 CFR 961 – Standard Contract for Disposal of Spent Nuclear Fuel and/or High-Level Radioactive Waste.

transportation and would retain final approval of all transportation routes. The contractors would make the arrangements for and accept spent nuclear fuel from owners and generators of the fuel, and supply all resources including casks and associated equipment for transporting spent nuclear fuel to a Federal geologic waste repository.

The RSCs would be asked to provide the services and equipment at fixed prices, and encouraged to develop equipment and procedures to enhance their efficiency. The contractors would be selected using an open competition. The involvement of the Department would be limited to policy decisions, primary interactions with the contract holders, primary interactions with States, Tribes and local government, stakeholder relations, final approval of routes, Quality Assurance oversight and auditing, and provision of financial and technical assistance to States and Tribes for training of public safety officials. The contracts would be accomplished in three phases: a planning phase, an acquisition and mobilization phase, and an operations phase.[7]

Key Elements of the Strategy include:

- Maximum use of private industry experience and capabilities.
- Shared risk with performance and profit incentives.
- Use of competitive, fixed-price type or fixed-rate type contracts.[8]
- Multiple awards, if possible, by dividing the contiguous 48 states into four regions[9] and contracting in the initial planning phase for one or more contractor(s) to service each of the four regions. Each Regional Servicing Contractor (RSC) will be responsible for all activities and services originating in its Servicing Region.
- After the initial contract phase, no RSC would be authorized to proceed with work in more than two regional servicing contracts.
- Interface between RSCs and contract holders to determine the best way to service a site and integrate site planning into a regional servicing plan which in turn would be integrated into an annual national servicing plan that assure controlled flow of SNF into a Federal facility.[10]
- Acceptance schedules based on the Standard Contract.
- The Department retains primary responsibility for establishing operating protocols and approval of routes before the RSCs submit the routes to Nuclear Regulatory Commission (NRC) for their approval.

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[7] Draft RFP number DE-RE-98RW00320, Acquisition of Waste Acceptance and Transportation Services for the Office of Civilian Radioactive Waste Management, September 1998.

[8] Id., pages b-1 through b-4.

[9] For purposes of the procurement plan, the contiguous U.S. was divided into four service regions analogous to the Nuclear Regulatory Commission regions.

[10] Draft RFP number DE-RE-98RW00320, Acquisition of Waste Acceptance and Transportation Services for the Office of Civilian Radioactive Waste Management, September 1998, pages c-11 and c-12.

- The Department's acceptance of utility-acquired storage/transportation systems, and if they are suitable for use at the Federal facility, possible compensation to the contract holder for avoided costs associated with the use of utility contract holder supplied equipment.[11]
- Several similar procurements, over several decades, with multiple awards made under each solicitation, are planned to provide services over the entire operating lifetime of the repository.

3.2 Scope and Description of the Acquisition Plan

Under the draft RFP, the Department would purchase services from RSCs who will perform waste acceptance and transportation functions. The contractors would accept spent fuel from contract holders and supply casks and equipment for transporting spent fuel to a Federal repository.

The primary RSC responsibilities would include:

- Providing all hardware, including transportation casks, canisters, and ancillary lifting equipment in accordance with identified requirements.
- Complying with applicable NRC, Department of Transportation, State, local and Tribal regulations.
- Interacting with State, local and Tribal governments, as appropriate.
- Providing training to contract holder and Federal repository personnel in cask operations
- Providing all waste acceptance and transportation services necessary to move spent nuclear fuel from the contract holder's sites to a Federal facility.

Contracts will be accomplished in three phases:

- Phase A: Development of site specific and regional servicing plans, followed by authorization of one RSC per region (or one RSC for up to two regions) to continue work into Phase B.
- Phase B: Mobilization of transportation services, finalization of transportation routes and training, and acquisition of transportation hardware (through lease or purchase).
- Phase C: Actual performance of waste acceptance activities and transport of spent fuel once a Federal repository becomes operational.

[11] Letter from Lake Barrett, Acting Director, Office of Civilian Radioactive Waste Mangement, to Potential Offerors and Other Interested Parties, dated September 11, 1998.

Phase A:[12]

Phase A is a two year planning period. It may include one or more awards in each region. During Phase A, the RSC would develop detailed plans for the Phase B and Phase C activities. These plans describe how the RSC would: manage the activities; acquire the required equipment and services; work with the contract holders at each reactor site in its Servicing Region; schedule all shipments to a Federal repository; analyze potential transportation routes; communicate with stakeholders such as State and local governments and Indian Tribes; develop emergency response procedures; apply its NRC-approved Quality Assurance Program to the project; and obtain commitments for financing.

In addition, the RSC would develop a proposal for Phase B and C with firm fixed prices and rates. The proposal and the plans are to be delivered to the Department at the end of Phase A and would be used by the Department to determine which, if any, contractors to authorize to proceed with Phases B and C.

The plans would be based on spent nuclear fuel acceptance schedules provided by the Department to the RSCs. Each utility in the United States with spent nuclear fuel to be accepted for disposal by the Department has a contract with the Department that defines the conditions and basis for the schedule for acceptance and transportation of the utility's spent nuclear fuel. The schedules to be furnished to the RSCs would be based on these contracts. Interactions between the Department and the RSCs during Phase A are planned to be limited. The contractors would submit monthly progress reports and there would be periodic management reviews. The RSCs would be paid a pre-determined firm-fixed price at the end of Phase A after delivery of all plans that are acceptable to OCRWM.

After an evaluation period the Department may authorize one RSC for each region to proceed into Phases B and C. The Department may choose to award work for up to two regions to a single RSC if judged to be in the government's best interest.

Phase B:[13]

Phase B is anticipated to last approximately fourteen years. The first four years cover initial equipment acquisition/fabrication and pre-operational mobilization activities. The last ten years run concurrently with Phase C and include management of Phase C waste acceptance and transportation activities and continuing equipment acquisition/fabrication.

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[12] Draft RFP number DE-RE-98RW00320, Acquisition of Waste Acceptance and Transportation Services for the Office of Civilian Radioactive Waste Management, September 1998, pages c-8 through c-9.

[13] Id. pages c-19 through c-26.

Several types of equipment would be furnished by the RSC including transportation casks and all required ancillary and support equipment. The RSC would be required to use NRC certified transportation casks that are suitable for use at the contract holder sites. Association of American Railroads approved rail cars are to be used, and the RSCs are encouraged to use advanced technology rail equipment. The equipment and procedures used for highway transport must satisfy applicable Commercial Vehicle Safety Alliance inspection standards.

All ancillary equipment required to handle and load the dual purpose canisters and the transportation casks would be provided to the contract holder by the RSC. Any system specific equipment required to handle and unload the transportation casks at a Federal repository would be supplied by the RSC. The Department would take title to some of the equipment as it is delivered and would have title to all of the equipment purchased by the RSCs including the transportation casks at the end of the contract.

Other important work during the first four years of Phase B includes operational demonstrations of equipment both at a Federal repository and in the RSC's Servicing Region. Training of contract holder and Federal facility personnel in the use of the RSC supplied equipment would be necessary prior to first use. The RSC also would be required to maintain and update the plans submitted at the conclusion of Phase A.

Phase C:[14]

Phase C is the ten-year operational period for waste acceptance and transportation. Commencing with the startup of Phase C operations, the RSC would accept the spent nuclear fuel at the contract holder's site on behalf of the Department, transport the spent nuclear fuel to a Federal repository, and provide all communications, reporting, special handling, and in-transit physical protection. The RSC would also provide public information and outreach as requested by the Department.

The RSC would be responsible for making all arrangements for transportation, including contracts with rail or highway carriers. If rail access is not available at a reactor, the RSC would be required to arrange heavy haul or barge transport and the necessary inter-modal transfer to move the loaded cask to the railhead. The RSC would provide for continuous tracking of each shipment utilizing a near real time tracking system. TRANSCOM, the system currently used for Department shipments or a similar system, would be required.

The specific spent nuclear fuel to be shipped from each contract holder in each year of Phase C will be as agreed with the Department and the contract holders, and this

[14] Id. pages c-27 through c-28.

information would be furnished to the RSC. The exact schedule for shipment each year would be as mutually agreed between the RSC, the contract holder, and the operator of a Federal repository.

Phase C would be initiated coincident with the operation of a Federal repository, nominally six years after contract initiation. Based on comments received from the cask industry during their reviews of earlier drafts of the RFP, OCRWM increased Phase A "Planning" and the Phase B "Acquisition and Mobilization" periods each by one year to allow additional time for the RSCs and contract holders to prepare for the Phase C operations.

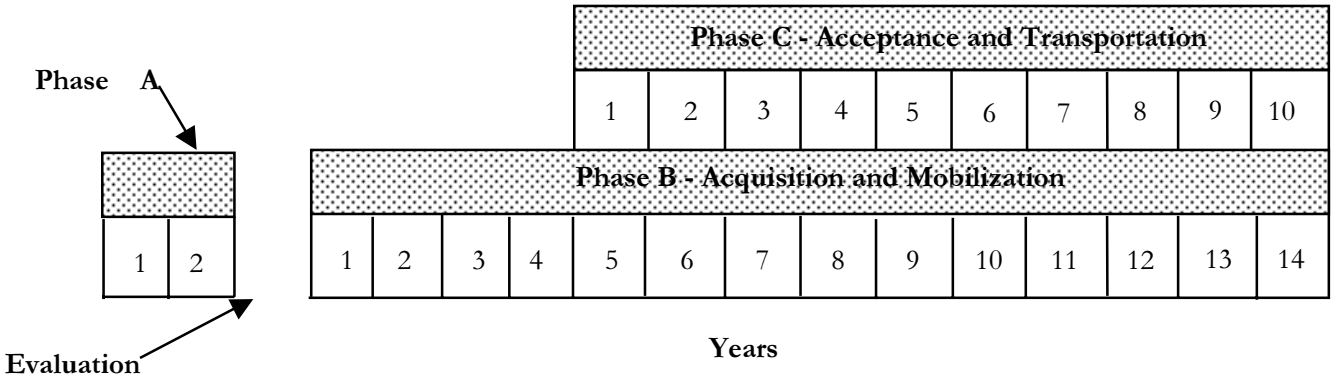

Figure 1 **RSC Contract Phases**

3.3 Potential Implementation Schedule

The Department's Plan for implementation of the Acceptance and Transportation Services acquisition will await a decision on siting a repository. The expectation is that waste acceptance at a repository would not commence before 2010. If the site is determined to be suitable, the Department's plan is to issue an RFP in 2002. Award of the initial Phase A Planning activity is expected by the middle of fiscal year 2003. The Department would authorize one RSC to proceed with Phase B for each region at the beginning of FY 2006. Subsequent Phase C authorizations are planned to begin in FY 2010 coincident with the start of repository waste acceptance.

The phased arrangement of the contract also allows sufficient time for the Department to implement the necessary training support activities that would be completed before Phase C transportation operations commence. Section 180(c) of the NWPA requires the Department to provide technical assistance and funds to States for training of public safety officials of appropriate units of local governments and Native American Tribes along transportation routes.

Specifically, Section 180 (c) states:

> The Secretary shall provide technical assistance and funds to States for training for public safety officials of appropriate units of local government and Indian tribes through whose

jurisdiction the Secretary plans to transport spent nuclear fuel or high-level radioactive waste under subtitle A or under subtitle C. Training shall cover procedures required for safe routine transportation of these materials, as well as the procedures for dealing with emergency response situations. The Waste Fund shall be the source of funds for work carried out under this subsection.[15]

This activity would be integrated with the RSC planning and mobilization of the transportation activities to assure that the training is accomplished to support waste acceptance schedules. Under the proposed schedule, Section 180 (c) funding would start at the same time as the initiation of the RSC Phase B.

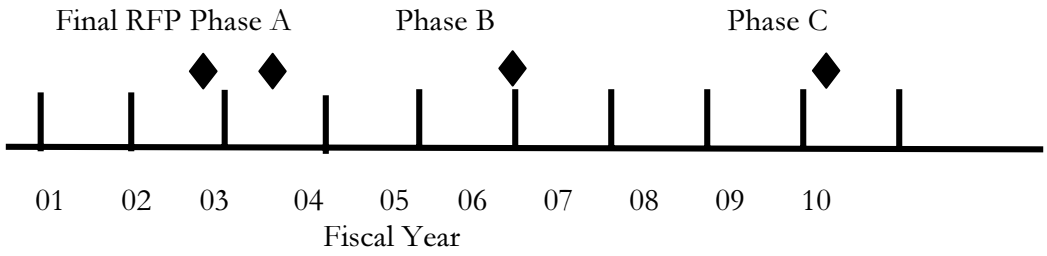

Figure 2 **Potential Implementation Schedule**

4. Fabrication Industry Analysis

A key consideration for developing a plan that assures "the timely fabrication" of the requisite transportation hardware and operational supporting systems is to assess the capability of the existing manufacturing infrastructure. The Department continuously evaluates various cask-manufacturing activities underway throughout the industry, in both the domestic and international markets (see Appendix A). The domestic market capability has been responding to a growing need for dual-purpose canister and cask systems for deployment at Independent Spent Fuel Storage Facilities. The technology and expertise required for the manufacture of these systems is identical in most respects to those required for a Federal repository transportation cask fleet. As part of the Department's acquisition planning (Phase A), the RSCs would develop cask fleet projections for their respective regions and would initiate any necessary new cask acquisitions as required under Phase B.

Key issues in determining availability of fabrication capabilities includes determinations of:

- Availability of suitable manufacturing facilities.
- Availability of adequate trained and qualified staff.
- Adequate supplies and sources for specialized materials and components.
- Adequate quality assurance programs and procedures in place.

[15] Nuclear Waste Policy Act, as amended, Sec. 180 (c).

The Department's plan allows approximately six years from inception until the beginning of actual spent nuclear fuel transportation activities in Phase C to develop adequate manufacturing capabilities and acquire the initial cask fleet and other equipment. Phase B continues for approximately 14 years allowing for continued deployment of transport systems to meet the anticipated growing repository receipt capacity and increasing fleet needs. Based on input received from the cask industry during the RFP reviews, this period provides sufficient time to mobilize the required manufacturing capacity. Further, the transport fleet would be deployed in stages to meet the waste acceptance rates[16] planned for a Federal repository. This allows a measured fleet deployment and does not require the entire transport fleet be available at the start of repository operations.

An estimation of the casks[17] that would need to be added to a Federal repository transportation fleet each year to meet the acceptance rates reflected in OCRWM program planning documents report is shown in the table below.

Projected Annual Federal Repository Transport Fleet Deployments[18]				
Year	**SNF Truck**	**SNF Rail**	**HLW Rail**	**Annual Additional Casks**
2010	1	9	3	13
2011	4	9	3	16
2012	0	9	2	11
2013	4	14	1	19
2014	2	9	1	12
2015	1	9	3	13
2016	0	1	0	1
2017	0	3	0	3
2018	0	3	0	3
2019	0	4	1	5
2020	0	3	0	3

Table 1 **Projected Fleet Deployment**

Current industry performance has shown that adequate manufacturing capacity is available to meet current needs. As the demand for dual-purpose casks has continued to grow to support at-reactor interim storage needs, the fabrication capacity has expanded to meet these demands. The Department believes that adequate manufacturing capacity will become available when needed to supply casks for

[16] The following acceptance rates are targets only and do not create any binding obligation upon the Department; those acceptance rates are 400, 600, 1200, 2000, and 3000 MTHM beginning in the first year and increasing each succeeding year until reaching a fixed rate of 3000 MTHM/year.

[17] A number of the "new" casks may be dual-purpose cask/canister transport systems.

[18] For first 10 years of operation.

transporting spent nuclear fuel to a Federal repository. The Department also recognizes that additional manufacturing capacity is available from a number of overseas sources. These sources have been supporting the U. S. domestic demand for casks for years and therefore have the required quality assurance programs in place.

Current estimates for the manufacturing time required for delivery of shipping casks are approximately 18 months for truck casks and 18–24 months for rail casks. Follow-on units can generally be delivered in 2-3 month intervals. Accordingly, during the initial four years of Phase B, a typical manufacturer could produce as many as 8-10 truck casks and/or 7-9 rail casks. With multiple vendors, the Department believes that adequate manufacturing capabilities will be available to support timely fabrication and deployment of the required transportation fleet.

Also, with the continued development and deployment of dual-purpose storage and transport cask systems at reactor sites and the possibility of commercial away-from-reactor spent nuclear fuel storage, it is difficult to determine precisely how many "new" spent nuclear fuel casks would actually be needed. Many of the dual-purpose cask systems currently being licensed or manufactured and deployed would potentially be used for the transport of the spent nuclear fuel to a Federal repository under the Department's transportation plan as contained in the RFP.

5. Review of the Proposed Plan

An initial draft request for proposal was released for comment in 1996 and a revised draft was released in 1997. These drafts underwent extensive review and revision over a 2 ½ year period that included two pre-solicitation meetings. Written comments were received from contract holders, potential cask vendors, State and local governments, industry organizations, and other interested parties. After multiple revisions, a final draft request for proposal was issued and posted on the OCRWM Program web page in September of 1998 (see Appendix B). The Department plans to complete the request for proposal expeditiously in preparation for final release for bids if or when a repository siting decision is reached.

6. Consultation with Contract Holders

A consultation draft Plan, that corresponds to sections 1 through 5 of this Plan, was distributed to the contract holders as the enclosure to a letter from the Department requesting the contract holders to review and provide comments on the Plan. In addition to the input specifically requested and received from contract holders, the Department received comments from equipment fabricators, vendors and transporters, and a small number of State and industry representatives. A sample copy of the letter to the contract holders and copies of all the comments that the Department received are provided as Appendix C to this Plan. Sections 1 through 5 of this Plan and Appendix A have been modified, where appropriate, in response to specific comments. This section has also been added to discuss the contract holders' comments.

Only a short review period could be made available to the contract holders to comment on the Plan and still allow the Plan to be submitted to the Committees consistent with the schedule specified in the House Report. The Department appreciates the efforts of the contract holders to review the Plan on the requested schedule, and appreciates the input provided by the contract holders. The Nuclear

Energy Institute (NEI), a nuclear industry organization whose members include all utilities with licensed commercial nuclear power plants in the United States, also provided comments on the Plan. A number of the contract holders indicated support of the comments assembled by NEI and/or made similar comments. The Department appreciates the NEI efforts to provide industry comments on the Plan.

The contract holders provided comments that are both general and specific in nature, and, where appropriate, specific elements of this Plan have been changed to address the comments. Some of the comments involved issues related to the Standard Contract and the Department's waste acceptance obligation, which are the subject of ongoing negotiation or litigation between contract holders and the Department. At the advice of the Department's General Counsel, comments related to issues subject to current litigation or confidential negotiations were not addressed in this Plan.

The contract holder reviewers expressed support for an approach that contracts with the private industry and utilizes the innovation of the market place to provide safe, cost-effective and efficient spent fuel acceptance and transportation. However most of the reviewers questioned the Department's plan to await implementation of the Waste Acceptance and Transportation Services acquisition until a decision on the siting of the federal repository and expressed the view that preparations for waste acceptance and transportation should begin as soon as possible.

Reviewers stated that the Department should be undertaking specific waste acceptance and transportation-related interface activities with contract holders now rather than waiting until a later date. As discussed in this Plan, the Department has been focusing its efforts and limited resources on characterizing Yucca Mountain to determine its suitability as a geologic repository. Accordingly, the Department has prioritized its scientific and engineering activities on the completion of site characterization. However, the Department recognizes that there are specific areas related to the physical transfer of spent nuclear fuel that must be addressed with the contract holders before potential bidders can be expected to provide reasonable proposals in response to an RFP. This would include such items as acceptance of canistered spent fuel, potential for campaigns of spent fuel shipments and site specific servicing requirements. To the extent feasible, consistent with budget priorities and overall program advances, the Department plans to initiate such discussions within the next year.

Reviewers also indicated that the Department should begin the acquisition of waste acceptance and transportation capabilities to demonstrate the Department's commitment to the timely removal of spent nuclear fuel from reactor sites. Some reviewers proposed that the Department immediately initiate a pilot program to demonstrate that equipment can be acquired and spent fuel could be safely accepted and transported from a shut-down reactor. The Department notes that implementing a first of a kind program to permanently dispose of spent nuclear fuel and high-level waste has proven to be more difficult and costly than anticipated by those who framed the controlling statutes. To divert the limited program funds to the acquisition of transportation infrastructure before an authorized receipt facility is determined would potentially further delay development of a geologic repository. Additionally, since spent fuel is currently being safely loaded into systems at utility sites, and the Department safely transports spent fuel in support of other program missions, and an authorized receipt facility is not available; a pilot program would be of little value.

A number of comments questioned the completeness of the Plan provided herein, suggesting it was a strategy and lacked appropriate implementation details. The Plan that has been provided is necessarily brief to meet the schedule specified in the Committee Report. It provides a solid basis for developing a more detailed plan consistent with overall program goals and priorities. This Plan foresees the very detailed, site-specific planning to occur during phase A of the RSC contract.

A number of reviewers indicated that they believed the Plan failed to recognize the potential difficulties associated with implementing a spent nuclear fuel transportation system, and cited the delays that have been experienced in the shipping campaigns identified in Section 2. The Department certainly recognizes that radioactive materials transportation, although highly regulated and safely implemented, remains controversial and may be subject to potential delays. In general, the long duration delays cited in the comments are associated with receipt facility operations and not implementation of the transportation system. However, the Department recognizes that ensuring the safe predictable shipment of spent nuclear fuel and high-level waste requires a cooperative effort on the part of the States, Tribes and local government, as well as, the Department, the contract holders and the transportation equipment and service industries. The early and continuing work on the draft RFP and with the Department's Transportation External Coordination Working Group and other outside organizations reflects this commitment.

Comments also questioned the feasibility and efficacy of the proposed approach to financial risk sharing and the pricing structure identified in the latest draft RFP. While the Department recognizes that the dynamics of the industry may require additional flexibility in the acquisition approach, it remains committed to the maximum use of the private sector to provide the transportation services. As indicated in the cover letter with the draft RFP[19], the ultimate method of contract financing and payment for services has not been determined at this time. The Department plans to revisit many of the structural and business issues identified during this review and as previous input provided by industry prior to finalization of the draft RFP and consistent with overall programmatic schedule and budget priorities.

Comments were also received regarding the use of the four NRC Regions as a basis for segmenting the work scope. Given the recent evolution of the power generation market under deregulation, with many mergers completed and numerous others being planned, and the continued deployment of Independent Spent Fuel Storage Installations by utilities, the Department will re-evaluate the basis for the "regional concept" currently incorporated in its acquisition Plan.

A number of comments were directed at Appendix A of the report regarding identification of fabricators and vendor capabilities. Many comments supported the addition of available canister fabricators to the Appendix. Accordingly, the fabricator and vendor information contained in Appendix A has been updated. It should be noted that the information is provided to aid the reader in the recognition that a sufficient base of industrial and manufacturing capabilities does exist to

[19] Letter from Lake Barrett, Acting Director Office of Civilian Radioactive Waste Management, to Potential Offerors and Other Interested Parties, dated September 11, 1998.

support our future transportation acquisition and deployment needs. This information is not intended to be a comprehensive analysis of individual manufacturers' capabilities or potential competing requirements, but a brief summary of industry capabilities. The Department expects that if the program continues toward the repository licensing and construction phases, that the industry will respond to increasing demand, as the potential cask market becomes more of a reality. The Department believes that its acquisition plan provides sufficient time for the cask and equipment vendors and manufacturers to respond to this anticipated need.

Some comments questioned the viability of the Plan as described and recommended that the Department should develop contingency plans and make them available for review. The Department is aware of the need to provide and maintain adequate contingency plans for this critical mission need. The approach outlined in the draft RFP, ensuring that more than one RSC is authorized to proceed into Phases B and C provides the Department contingency. There would be capable performers available if an RSC is unable to fulfill its contract. In addition, as an overall contingency measure, the Department included, as an option that could be exercised if necessary, responsibility for waste acceptance and transportation services, including acquisition of transportation equipment within the overall scope of its recent Management and Operating contractor selected for the OCRWM program.

A number of comments stressed the need to transport high burn-up spent fuel, suggesting that the Contract holders will likely offer this material for pickup before some of the older spent fuel. Additionally, comments questioned the Department's readiness to pickup spent fuel directly from the fuel pools rather than spent fuel in canisters from dry storage systems. The Department is aware of the growing need to address the transport, handling and possible storage of high-burn-up spent fuel. The Department also acknowledges that contract holders may prefer to have it pick-up high burn-up spent fuel early in the acceptance schedules rather than older spent fuel that may be in an on-site dry storage. The Department will work with the contract holders to better characterize transport needs and make the necessary technical determinations required to support design of the waste packages, fuel handling building and other repository disposal interfaces that may be impacted by the need to receive higher burn-up spent fuel during the early phases of repository operations. Under the current acquisition Plan described herein, the RSC would be responsible for providing the required transport systems, licensed by the NRC, that will be suitable for transport of the spent fuel, including that with higher burn-up, and interfacing with the contract holder's spent fuel pool. The Department will provide additional emphasis for this specific requirement in subsequent drafts of the RFP in an effort to characterize the specific schedule impact related to development of new transport packages that may be required. The Department will rely on industry to determine the required capabilities of their cask systems relative to high burn-up spent fuel and direct interface with bare fuel pool operations.

Some reviewers requested that the Department incorporate into its Plan the shutdown reactor priority provision (see 10 CFR Part 961, Article VI B (1)(b)) in the Standard Contract that allows the Department to grant priority to shutdown reactors. The Department has informed contract holders that due to limited acceptance capacity and equity issues, it does not plan to provide a shutdown reactor priority acceptance, but that the contract holders should utilize the contract's delivery commitment schedule exchange provisions, which permit contract holders to exchange places in the queue subject to DOE's approval (see id. Article V.E.).

Questions were raised regarding the Department's role in communicating with the public and potentially relinquishing one of its key responsibilities to the RSCs. As stated in Section 1.2 of the draft RFP, "The DOE will retain responsibility for policy decisions, stakeholder relations, final route selection, and implementing Section 180(c) of the NWPA. These activities will not be delegated to the RSC(s)." The Department plans to use the RSC to support communication and outreach efforts as specified in Section 2.2.8 of the RFP.

Contract holders indicated that their established relationships with state and local officials in their service area could be beneficial to the Department in implementing its national spent fuel transportation program. The Department recognizes that the utilities have established working relationships in their areas, and in its efforts to provide safe, predictable and efficient transportation of spent fuel will, where appropriate, endeavor to build on these established relationships.

Reviewers stated that the Department should take advantage of the private industry efforts to license, acquire transportation equipment for and ship spent fuel to private spent fuel storage facilities. Several further suggested that the Department should seek out these opportunities to demonstrate its capabilities to provide for the training and transportation services to contract holders and other stakeholders. The consultation draft stated that OCRWM will continue to incorporate the experience gained through other Departmental transportation activities into its plans for transportation to and waste acceptance for a Federal repository. In the same manner, the Department will seek to benefit from the experience of the private industry transportation efforts.

A number of comments were specifically directed to the clarification or further specification of RSC responsibilities under the proposed acquisition. These included items such as servicing potential private storage facilities and appropriate emphasis on specific utility plant operating processes and procedures. These will be addressed after further discussions with the contract holders in the finalization of the RFP.

Appendix A – Cask Status and Fabrication Capabilities

The existing commercial domestic fleet of spent nuclear fuel transport casks is small but adequate for present and anticipated short term spent nuclear fuel transportation requirements. It consists of transport only truck casks, transport only rail casks and dual-purpose casks, which are large storage-transport casks that are shipped by rail. Tables A-1 and A-2 show the transport only truck and rail casks currently available. Table A-3 shows the dual-purpose casks currently available and under development. This fleet of dual-purpose casks is relatively small, but is rapidly increasing to meet utility needs for dry cask storage at reactor sites.

The cask manufacturing capabilities in the USA and worldwide are expected to be sufficient to meet the future needs of the Department of Energy (DOE) to transport spent fuel from utility sites to a federal repository. Two USA fabricators, currently fabricating large casks, were contacted by DOE. Three other USA manufacturers and one Japanese firm volunteered information about their cask manufacturing capabilities. A summary of the information obtained from these six manufacturers is provided in Table A-4. The list of cask manufacturers identified here is not exhaustive. It is intended to be a representative sampling of potential cask fabricators.

The manufacturing organizations listed in Table A-4 all have recent experience fabricating casks and cask components (e.g., canisters) that meet Nuclear Regulatory Commission (NRC) requirements. They all report having the capability of producing at least 20 casks per year following an initial start up of about six months. The combined and individual experiences of these companies are extensive. A few of the recent cask fabrication activities are given in Table A-4 for illustration. Some of the experience listed is related to construction of storage casks, which are similar to transport and dual-purpose (storage-transport) casks. These casks must all meet applicable NRC requirements for storage and transport.

It should be noted that the reported fabrication rate for casks is based on estimates provided by manufacturers. Although the rates claimed have not been verified, they seem reasonable. Recent experience may suggest that a rate of 20 per year with a six-month startup is optimistic. However, the circumstances that surround recent experience must be considered in this evaluation. Some factors that may bring about or exacerbate delays include regulatory issues, delays in ordering, availability of specialty materials, design changes made to accommodate fabrication limitations, size of orders, and competition for equipment and personnel within a fabricator's facility. As manufacturers and their customers gain more experience with these orders, improvement in production rates, or at least the estimation of these rates is anticipated.

The two USA cask manufacturers initially contacted by DOE were Precision Components Corporation (PCC), York, PA, and US Tool and Die, Pittsburgh, PA. The three USA manufacturers who volunteered information were Ionics, Inc, Bridgeville, PA, Nooter Fabricators, Inc., St. Louis, MO, and Ranor, Inc., Westminster, MA. Hitachi Zosen USA,

Ltd., who have offices in the USA and manufacturing facilities in Japan, also volunteered information.

PCC has fabricated casks for the Naval Nuclear Propulsion Program. They also fabricated the half-scale model of the General Atomics GA-4 truck cask for DOE. PCC recently fabricated the MP-187 casks for Transnuclear-West. They are building the TN-68 for Transnuclear. PCC is also fabricating the TN-32 and TN-40 metal storage casks for Transnuclear. PCC has expanded its capability to address the needs of dual-purpose systems. They entered into an agreement with a canister fabricator to build the canisters which hold the spent fuel for storage and transport. This gives them the ability to fabricate an entire dual-purpose system. US Tool & Die, Inc. has fabricated four HI-STAR dual-purpose, storage-transport casks for Holtec International. They have recently finished another three HI-STAR 100 casks that await delivery. US Tool & Die can build casks and canisters. (See Table A-4 for summaries of this information for these and other manufacturers, along with their facility capabilities and workforces.)

Although the demand for cask manufacture in the United States has not been great, it is increasing to meet the increased demand for reactor on-site dry storage. The demand has resulted in rapid development of an active and growing dual-purpose cask industry. The manufacturing capabilities of the current fabricators would be sufficient to satisfy current cask needs. Some manufacturers said they are operating below their maximum capacities. For example, PCC is operating at two daily shifts with 390 employees. At their peak they operated three shifts with about 800 employees. The manufacturers contacted all believe they can produce and deliver more than 20 casks per year, following a six-month lead-time. Although the production rates have not been verified, current fabrication activity will offer opportunity to test manufacturer's claims. Even if production rates are somewhat overstated, the number of fabricators available will be adequate to meet any foreseeable shipping needs.

European and Asian manufacturers have also fabricated casks for USA cask vendors. NAC International has had five of their NAC-LWT truck casks fabricated by ENSA, a Spanish manufacturer (not included in Table A-4). Three new NAC-LWT casks were built in the past eighteen months by Hitachi Zosen. They were delivered by the end of December 2000. Again, there are many overseas manufacturers not identified here who would be willing and able to offer their services to supply casks needed to meet USA demands.

Table A-1. Transport Only Truck Casks

Model Name	Vendor	Capacity		C OF C[1]	Number Built	Remarks
		PWR assemblies	BWR assemblies			
GA-4	General Atomics	4	-	Yes	0	
GA-9	General Atomics	-	9	No	0	Similar to GA-4
NAC-LWT	NAC Int'l	1	2	Yes	5	Three additional casks were fabricated by Hitachi. All were delivered to NAC by the December 2000.
NLI-1/2	NAC Int'l	1	2	Yes	5	Grand-fathered C of C, new fabrication is not authorized.
TN-8L	Trans-nuclear	3	-	Yes	2	Grand-fathered C of C, new fabrication is not authorized.
TN-9	Trans-nuclear	-	7	Yes	2	Grand-fathered C of C, new fabrication is not authorized.

Table A-2. Transport Only Rail Casks

Model Name	Vendor	Capacity		C of C[1]	Number Built	Remarks
		PWR Assemblies	BWR Assemblies			
IF-300	Chem-Nuclear	7	17	Yes	4	Grand-fathered C of C, new fabrication is not authorized.
NLI-10/24	NAC Int'l	10	24	Yes	2	Grand-fathered C of C, new fabrication is not authorized. Never used. Baskets of built casks were scavenged.

[1] Nuclear Regulatory Commission Certificate of Compliance

Table A-3. Dual-Purpose (Storage / Transport) Casks

Model Name	Vendor	Capacity		Part 71 C of C	Number Built	Remarks
		PWR	BWR			
CASTOR X32 S	GNB[2]	32	-	-	0	GNB is preparing an application for NRC certification. This is an all steel version of a German design cask, which uses ductile iron.
HI-STAR 100	Holtec Int'l	24	68	Yes	4	HI-STAR is a canister-based storage-transport cask. The four built casks are loaded. Three more were built in the year 2000. The HI-STORM is used for storage.
NAC-STC	NAC Int'l	26	-	Yes	0	Originally designed for uncanistered fuel, but canistered versions are available.
NAC-UMS	NAC Int'l	24	56	Pending May '01	0	Canister-based dual-purpose system.
MP-187	Trans-nuclear West	24	-	Yes	1	This is a transport cask, which uses a NUHOMS unit for storage. An additional unit is partially built.
TN-68	Trans-nuclear	-	68	Pending Feb '01	4	Five in production.
FuelSolu-tions T-125	BNFL Fuel Solutions	21[3] 24	74[4]	-	0	Canister-based dual-purpose cask. Part 71 SAR to be submitted March '01. For storage, use the FuelSolutions W-100.

[2] Gesellschaft fur Nuklear-Behalter mbh

[3] Canister for 21 high burnup (up to 60 GWD/MTU), high initial enrichment (5%) PWR assemblies.

[4] Canister holds 74 BWR assemblies from Big Rock Point. These assemblies are about half the length of typical fuel.

Table A-4. Cask Fabricators

Name Address Phone WebSite	**Casks Recently Built for USA Market** (Partial List)	**Facility Size Employees Other Notes**	**Remarks**
Hitachi Zosen USA, Ltd. 767 Third Ave., 17th floor New York, NY 10017 212-355-5650 www.hitachizosen.co.jp	>NAC-LWT >Numerous casks for Europe and Japan.	- 336,00 sq. ft. - 65 employees - Can fab casks and canisters.	- Delivered 3 NAC-LWTs by the end of 2000. - Baskets and canisters for TN and NAC - Casks used in Asia and Europe meet transport regulations that are similar to NRC regulations. - Fabrication facilities in Japan.
Ionics Inc. Bridgeville Division 3039 Washington Pike Bridgeville, PA 15017 412-257-2029 www.ionics.com	>DOE casks >Navy spent fuel casks >NAC UMS	- 250,000 sq. ft - 250 employees - Can fab casks and canisters.	- Provided canisters (60) and concrete storage casks (48) for NAC - Fabrication facility in Cannonsburg, PA.
Nooter Fabricators, Inc. 1400 S Third St. St. Louis, MO 63104 314-421-7733 www.nooter.com	>MCO >DOE Transuranic waste casks	- 700,000 sq. ft - 300 employees - Can fab casks and canisters.	- Multi-Canister Overpack (MCO) prototype for DOE/INEEL. - Fabrication facility in St. Louis, MO.
Precision Components Corporation (PCC) P.O. Box 15104 York, PA 17404 717-848-1126 www.pcc-york.com	>TN-68 >MP-187 >TN-32 >TN-40	- 250,000 sq. ft - 390 employees - Can fab casks and canisters.	- Delivered 4 of 9 TN-68s. The remaining 5 by June '01. - TN-32 and TN-40 are storage only casks. - Fabrication facilities in York, PA.
Ranor, Inc. P.O. Box 458 Bella Drive Westminster, MA 01473 978-874-0591 www.ranor.com	>TN-32 >GE-2000 >NUHOMS canisters >Trupact II	- 125,000 sq. ft - 170 employees - Can fab casks and canisters.	- The TN-32 is a storage only cask that is similar to a dual-purpose cask. - The GE-2000 delivered 1994. - NUHOMS canisters are storage only.

			- Trupact II is a packaging for transuranic waste. - Fabrication facility in Westminster, MA.
U.S. Tool & Die, Inc. 200 Braddock Ave. Pittsburgh, PA 15145 412-823-3773 www.ustdnuclear.com	HI-STAR	- 150,000 sq. ft - 175 employees - Can fab casks and canisters.	- Delivered 4 HI-STORM casks, 3 additional built in 2000. - Fabrication facility in Pittsburgh, PA.

Appendix B - History and Status of the Departments Acquisition and Deployment Plan

The Department initiated development of its plan for acquisition and deployment of waste acceptance capabilities in May 1996. The following summarizes the key activities that have been completed to date.

- May 1996: Request for Expression of Interest (EOI) and Comments issued. The EOI provided general information on the planned acquisition process and requested comments on six specific issues.
- June 1996: Draft Statement of Work (SOW) and concept of operation issued.
- July 1996: First pre-solicitation conference held; 89 persons representing 68 organizations attended.
- December 1996: First draft RFP for waste acceptance and transportation services for public comment issued.
- February 1997: Second pre-solicitation conference held; 135 persons representing 79 organizations attended.
- November 1997: Revised draft RFP issued.
- September 1998: Second revised draft RFP issued.

The multiple drafts of the RFP reflect modifications that were made by the Department based on input received from various industry representatives, government and other interested parties. Their inputs addressed issues including institutional concerns, routing decisions and responsibilities, scheduling, business and financing concerns, risk management, and manufacturing and operational logistics.

Further work on the RFP has been deferred until a site decision is finalized. If a siting decision is reached, the Department will determine if further comment and revision of the draft RFP is necessary.

Appendix C
Comments on Consultation Draft of Plan

American Electric Power
Ameren Union Electric
Arizona Public Service Company
Carolina Power and Light Company
State of Connecticut
Consumers Energy Company
Dairyland Power Cooperative
Dominion Generation
Exelon Nuclear
Florida Power and Light Company
Hitachi Zosen USA, Ltd.
Ionics, Incorporated
State of Maine
Maine Yankee Atomic Power Company
Nac International
NARUC
Nebraska Public Power District
Nooter Fabricators, Inc.
North Atlantic Energy Service Corporation
Nuclear Energy Institute
Nuclear Management Company
Pennsylvania Power and Light Company
Portland General Electric Company
Private Fuel Storage, LLC
Public Service Electric and Gas Company
Ranor, Inc.
Rochester Gas and Electric Corporation
Sacramento Municipal Utility District
Southern California Edison
Southern Nuclear Operating Company, Inc.
Tennessee Valley Authority
Xcel Energy
Yankee Atomic Electric Company/ConnecticutYankee Atomic Power Company

SAMPLE LETTER TO CONTRACT-HOLDERS

Dear:

The report from the House Committee on Appropriations to accompany the Energy and Water Development Appropriations Act, 2001, directed the Department of Energy to submit a plan for the timely fabrication and deployment of waste acceptance capabilities. The report further directs that the plan should be developed after consultation with affected contract holders and consideration of currently licensed transportation systems and other transportation. The plan is to be submitted to the House Committee by December 31, 2000.

This letter requests your review of the enclosed consultation draft entitled "Plan for Transport Cask Fabrication and Deployment of Waste Acceptance Capabilities." This draft plan has been prepared by the Department of Energy's Office of Civilian Radioactive Waste Management (OCRWM) in response to direction from the House Appropriations Committee.

Please provide OCRWM with any comments that you have on this draft plan by December 15, 2000. This short review time is necessary to enable OCRWM to consider comments prior to submission of the plan to Congress by the end of this year. To facilitate a rapid receipt of comments, you may e-mail comments to Ms. Corinne Macaluso of the Office of Civilian Radioactive Waste Management at Corinne.Macaluso@rw.doe.gov or fax them to her at (202) 586-6520. Please be advised that your comments may be made available for public review.

If you have any questions about this draft plan, please contact Ms. Macaluso on (202) 586-2837.

Sincerely,

James H. Carlson, Acting Director
Office of Acceptance, Transportation
and Integration
Office of Civilian Radioactive
Waste Management

Enclosure: As stated

cc:
CEO
Utility Spent Fuel Manager

wtmacrae@aep.com on 12/15/2000 11:11:54 AM

To: Corinne Macaluso/HQ/RWDOE@CRWMS
cc: djgarner@aep.com@INTERNET, dhmalin@aep.com@INTERNET

Subject: American Electric Power's Comments on DOE's Plan for Waste Acceptance Capabilities

Dear Ms. Macaluso:

Attached is a draft of American Electric Power's comments on the consultation draft entitled "Plan for Transport Cask Fabrication and Deployment of Waste Acceptance Capabilities." We are providing the draft now to meet the short scheduled requested by the DOE. We will send the final document to the DOE upon the completion of our corporate reviews.

If you have any questions on the comments, please contact me at 616-697-5633.

Sincerely,

Walter T. MacRae

(See attached file: AEP Comments on DOE Plan.doc)

Draft
American Electric Power's Comments on DOE's Plan

Ms. Corinne Macaluso
Office of Civilian Radioactive Waste Management
U. S. Department of Energy

Dear Ms. Macaluso:

American Electric Power is a spent fuel contract holder for the Donald C. Cook Nuclear Plant in Bridgman, Michigan. We have reviewed the draft of the "*Report to the House Committee on Appropriations, Plan for Transportation Cask Fabrication and the Deployment of Waste Acceptance Capabilities*", and we provide the following comments for consideration. In general, the Department of Energy (DOE) has not met the intent of its obligation to the nuclear industry or to the House Committee on Appropriations in drafting a plan. The document presented here is the start of a strategy for dealing with the issues, but it is not a plan for the proper and timely transportation of spent nuclear fuel. American Electric Power continues to support the DOE objective of contracting with the private industry and using marketplace innovation to provide waste acceptance and transportation services. A market-based approach to waste acceptance, transportation, and storage of commercial spent nuclear fuel is essential to providing a safe, cost-effective, and efficient spent nuclear fuel management with reasonable schedules, but DOE needs to put forth a true plan to achieve these issues.

Comments on the DOE Strategy

DOE is required by the House Committee on Appropriations to demonstrate its ability to remove spent fuel from reactor sites, and to demonstrate a commitment to the timely removal of spent fuel. To accomplish these demonstrations, DOE was required to submit a plan for the timely fabrication and deployment of waste acceptance capabilities. In fulfillment of this requirement, DOE published the Consultation Draft entitled the "*Report to the House Committee on Appropriations, Plan for Transportation Cask Fabrication and the Deployment of Waste Acceptance Capabilities*".

DOE has presented a "strategy" for the fabrication and deployment of waste acceptance capabilities in the Report, not a detailed plan regarding how these activities will be accomplished. It is our view that the Report is not an adequate plan. To be such, it should demonstrate DOE's ability and commitment to the timely removal of spent nuclear fuel.

The draft Report is primarily a discussion of the history of DOE transportation planning experience and its previous waste acceptance activities, including a summary of its current procurement strategy for acquisition of waste acceptance and transportation services. Central to DOE's strategy is the acquisition of Regional Service Contractors (RSC) as outlined in a draft Request for Proposal (RFP) for Acquisition of Waste Acceptance and Transportation Services issued by DOE in September 1998. DOE's strategy appears to rely on private industry, through the RSC; to put in place detailed plans for fabrication and deployment of waste acceptance capabilities. While we endorse the concept of relying on the private sector, there is little in the Report to provide incentives and enable the private sector to succeed. The Report does not recognize the substantial challenges, both financial and practical, that will face the potential RSC contractor.

The RSC Concept

The DOE contracting strategy embodied in the Draft RFP represents a unique and innovative contracting strategy that seeks to privatize waste transport and use fixed pricing for both equipment and services. It is noted that some of the industry's previous concerns related to the draft RFP and the role of the RSC have been addressed in a limited manner by DOE in the Report. However, since many of the industry's more significant concerns regarding the draft RFP remain, further discussion between DOE and the nuclear industry on this subject is warranted.

As an example of these concerns, the draft RFP shifted the majority of the risk to the RSC while delaying payments for services until after the service is provided. This RFP contracting strategy may not prove to be practical and economic. The RFP contracting strategy must provide adequate risk sharing to potential contractors in order to obtain cost-effective services for waste acceptance and transportation.

It should also be noted that DOE has experienced problems in past privatization efforts and the civilian radioactive waste management program has a long history of delays. DOE should have contingency plans in place to provide timely waste acceptance and transportation services if this new and complex RFP contracting strategy proves to be impractical or uneconomic. Additionally, the use of RSC may not be able to support the canisters or storage systems in use in the region. Provision must be made to allow utilities to chose a vendor that matches their technical needs and not be forced to use a vendor because they happen to be in the region.

Timing of Waste Acceptance and Transportation Planning

The Report states that the implementation of the Waste Acceptance and Transportation Services acquisition will await a decision on the siting of the federal repository and it should not be so dependent. The DOE obligation to begin waste acceptance and transportation is unconditional and independent of such a decision regardless of what the outcome might be. The transportation equipment design and procurement lead times indicate that the process should begin now. DOE should begin planning and acquisition of waste acceptance and transportation capabilities as soon as possible to demonstrate its commitment to the timely removal of spent nuclear fuel from reactor sites. Receipt of spent fuel prior to the start of repository operations should be addressed by DOE as a means to accomplish the timely removal of spent nuclear fuel from reactor sites.

The DOE strategy relies on contractors selected in 2002 or later, to plan for the procurement of transport casks and services to support operations in 2010. If impediments to timely transport and fuel acceptance, such as cask design changes, are identified in the proposed Phase A planning phase, no time is provided in the DOE strategy to resolve these issues. Given the lead times involved in resolving necessary changes, DOE should begin waste acceptance and transportation planning process immediately in order to insure that the schedule outlined in the Report can be met. DOE's budget request to Congress for Fiscal Year 2002 and beyond should reflect the necessary funding requirements for the acquisition of waste acceptance and transportation services and DOE should vigorously pursue these funding requirements during the appropriations process.

DOE should put in place plans for activities that require interfacing with Standard Contract Holders to address issues such as:

- Waste acceptance schedules
- Site service agreements
- Hardware requirements
- Near-site transportation infrastructure
- Standard Contract modifications to the extent necessary

Transportation Cask Acquisition

While DOE's reliance on the private sector for used fuel transportation technology is appropriate, its current schedule for deployment of the RSC does not appear to include adequate time for modification of current cask designs to support the transport of fuel with high burnups and enrichments, incorporate burnup credit methodology to ensure a more efficient transport system, or for the development of single purpose transport casks.

The DOE strategy for waste acceptance and transportation relies solely on the use of transport and dual-purpose cask systems that have already been licensed by private industry. As currently certified, these transport or dual-purpose systems may not be capable of transporting the spent fuel that Contract

Holders plan to make available to DOE during the initial years of waste acceptance. Current transport and dual-purpose cask technologies have burnup limitations that are lower than U.S. Nuclear Regulatory Commission (NCR) limits on reactor operation does. Much of the spent fuel with burnup limits within current transport cask limits of 45 GWD/MTU will be placed in dry storage at nuclear power plants by 2010. The balance of spent fuel remaining in pool storage reactor sites will have higher burnups and likely will be the first to be transported. Hence, DOE must be capable of transporting spent nuclear fuel with burnups in excess of 45 GWD/MTU. DOE needs to provide time in its schedule for private industry to design, license, and fabricate transport casks for high burnup spent nuclear fuel to insure timely acceptance and transportation.

DOE's current plan to rely on the private sector technologies must recognize that many Contract Holders will likely direct DOE to accept spent nuclear fuel directly from the storage pools rather than fuel that has been loaded into dry storage in order to minimize dry storage at plant sites and avoid multiple handling of used fuel assemblies. The DOE procurement strategy appears to rely primarily on the use of canister-based dual-purpose systems for early spent fuel transport to the repository. DOE should recognize that:

- DOE, or its contractor, cannot specify which used fuel the utility provides for shipment at a particular time as part of waste acceptance and transportation.
- DOE should accept spent nuclear fuel in Contract Holder-acquired dual-purpose casks or canisters. However, many Contract Holders are likely to direct DOE to accept used fuel directly from the storage pool during the initial phase of waste acceptance.
- DOE and its RSC cannot require that a Contract Holder load spent fuel into dual-purpose canister systems prior to acceptance by DOE.
- The use of dual-purpose systems, particularly at sites that have not loaded spent fuel into such systems for dry storage, could impose additional burdens on the Contract Holders.

The Phase A planning process must occur early enough to identify the types of transport casks required and allow adequate time for cask design and licensing. DOE should not simply assume that current transport or dual-purpose casks will be suitable to transport spent nuclear fuel during the initial years of waste acceptance.

Cask Manufacturing Capability

DOE places great emphasis on the current cask fabrication performance and projects that performance into the future. It should be noted that this performance, while supportive of utility dry storage needs, has not been without problems and resulting delays. DOE should consider this opportunity for delay in its contingency planning.

The DOE Report only addresses the manufacturing capability with regard to transportation casks. DOE's current strategy to rely on private sector technologies for transporting spent nuclear fuel could result in the use of canister-based dual-purpose systems for waste acceptance. In order to transport spent nuclear fuel using these systems; canisters would have to be provided to Contract Holders along with the transportation cask. Therefore, the plan should also address canister-manufacturing capability. In fact, while the transport casks would be reused, the canisters would not and consequently require fabrication of a much larger number to support used fuel acceptance in a timely manner.

DOE should recognize that cask and canister manufacturing capability to support waste acceptance and transportation capability will have to compete with utility requirements for at-reactor storage systems. This will be true during Phase B, Acquisition and Mobilization, and for at least the first five to ten years of Phase C, Acceptance and Transportation, of the RSC contract.

The cask manufacturers list in Table A-4 is not complete. This list should include not only those manufacturers that have fabricated used fuel casks but also those that have fabricated used fuel

canisters and associated components. Since DOE plans to rely on private sector technologies for the transport of spent nuclear fuel, canister-based systems will require the fabrication of not only transport casks but also the dual-purpose canisters and associated hardware.

Other Issues

DOE should adopt officially and conduct its planning for waste acceptance, transportation, and disposal based on the acceptance rates discussed in the Report (see footnote on page 12 of the plan). The Report only refers to these rates as "... targets and do not create any binding obligation..."

DOE "proposes" accepting utility acquired transportation and storage systems. DOE should agree to accept these utility acquired systems as long as the systems are NRC certified for transportation and/or storage. In addition, if DOE and its contractors use the system components, then the utility should be compensated for the avoided costs associated with the use of the utility-supplied equipment.

American Electric Power is prepared to work with the DOE to develop a reasonable and realistic plan to address the transportation of spent nuclear fuel. The plan needs to be more aggressive and independent of the opening of the disposal site. By working together, a plan can be built to address all the issues and meet the needs of the utility industry and the obligations of the DOE.

If you have any questions on our comments, please contact Mr. Walter T. MacRae at 616-697-5633.

Thank you,

Daniel J. Garner
Director, Nuclear Fuel, Safety and Analysis

Union Electric

One Ameren Plaza
1901 Chouteau Avenue
PO Box 66149
St. Louis, MO 63166-6149
314.621.3222

December 6, 2000

Ms. Corinne Macaluso
U. S. Department of Energy
Office of Civilian Radioactive Waste Management
1000 Independence Ave. SW
Washington, DC 20585

Ameren UE

Dear Ms. Corinne Malacuso:

PLAN FOR TRANSPORTATION CASK FABRICATION AND THE DEPLOYMENT OF WASTE ACCEPTANCE CAPABILITIES

Ref: Letter to A.C. Passwater from J. H. Carlson dated 12/4/00

We have reviewed the consultation draft Plan for Transportation Cask Fabrication and the Deployment of Waste Acceptance Capabilities attached to the referenced letter. We support the Department's efforts to plan for the acceptance and transportation of high level radioactive waste. We appreciate the opportunity to comment on this draft plan.

We believe that the draft plan is comprehensive, but we do have some comments for your consideration. In the second to the last paragraph on page 9, it is stated that the RSC is responsible for making transportation arrangements, including heavy haul and barge transport if necessary. It is likely this will be used at Callaway, as no rail facilities exist at the plant. It is our understanding that the Department will take ownership of the spent fuel when it is loaded in the cask ready to be placed on the first transport vehicle. It may be desirable to clarify this in the plan.

The barge facilities at our plant are not normally used. It may be that the barge facilities will need modifications or improvements to handle spent fuel casks. In the second paragraph on page 9, it states "All ancillary equipment required to handle and load the dual purpose canisters ... would be provided to the utility by the RSC." Based on this, it is our understanding that the Regional Servicing Contractors should be responsible for making any required modifications to the barge facilities. Required modifications for the transport of spent fuel would be paid for by the Nuclear Waste Fund. It would be desirable to clarify this in the plan.

While several places in the Plan indicate that current dual purpose cask systems "would potentially" be used for transport to a Federal repository, the plan should state that priority would be given to accommodating existing casks in use.

Thank you for considering these comments. If you have any questions on these comments, please call Neal Slaten at 314.554.2855. Future correspondence should also be addressed to Neal Slaten, Supervising Engineer, Strategic Programs at the address above.

Sincerely,

Neal Slaten
Supervising Engineer, Strategic Programs

PMB/mlo

Paul F. Crawley
Director, Nuclear Fuel
Management
Palo Verde Nuclear
Generating Station

Tel. 602-393-6360
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Mail Station 7693
PO Box 52034
Phoenix, Arizona 85072-2034

December 19, 2000
ID: 162- 09481-PFC/sle

U.S. Department of Energy
Attn: James H. Carlson, Acting Director
Office of Acceptance, Transportation
And Integration
Office of Civilian Radioactive Waste Management
1000 Independence Ave., S.W.
Washington, DC. 20585

References: *Department of Energy Letter from James H. Carlson, "Report to the House Committee on Appropriations" dated December 4, 2000*

Subject: Arizona Public Service Co. (APS), Review of Draft Waste Acceptance Plan

Dear Mr. Carlson:

Please find attached APS' comments submitted with regard to DOE's "Plan for Transport Cask Fabrication and Deployment of Waste Acceptance Capabilities" as requested in the referenced letter. These comments were assembled by NEI based on input from the nuclear industry which APS concurs with. Additional clarification has been incorporated by APS on several topics.

If you have any questions about these comments, please call me at (623) 393-6360.

Sincerely,

Paul F. Crawley

Paul F. Crawley, Director
Nuclear Fuel Management

PFC:sle

Attachment: As stated

cc: J. M. Levine
G. R. Overbeck
W. E. Ide
C. D. Mauldin
K. C. Manne
B. J. Hansen
M. J. Reid
M. F. Sauvageau

NUCLEAR ENERGY INSTITIUTE
COMMENTS ON THE U.S. DOE
PLAN FOR TRANSPORTATION CASK FABRICATION AND WASTE ACCEPTANCE CAPABILITIES

The nuclear industry continues to support the DOE objective of contracting with the private industry and utilize marketplace innovation to provide waste acceptance and transportation services. The nuclear energy industry believes that a market-based approach to waste acceptance, transportation, and storage of commercial used nuclear fuel is essential to providing a safe, cost-effective, and efficient used nuclear fuel management with reasonable schedules.

Comments on the DOE Strategy

The Committee report indicates that DOE needs to demonstrate its ability to remove spent fuel from reactor sites, and to demonstrate a commitment to the timely removal of spent fuel. To accomplish these demonstrations, DOE should submit a plan for the timely fabrication and deployment of waste acceptance capabilities. In fulfillment of this requirement, DOE published the "*Report to the House Committee on Appropriations, Plan for Transportation Cask Fabrication and the Deployment of Waste Acceptance Capabilities*" (Report).

DOE has presented a "strategy" for the fabrication and deployment of waste acceptance capabilities in the Report, not a detailed plan regarding how these activities will be accomplished. It is the industry's view that the Report is not an adequate plan. To be such, it should demonstrate DOE's ability to remove used nuclear fuel from utility sites; and demonstrate a commitment to the timely removal of used nuclear fuel.

The draft Report is primarily a discussion of the history of DOE transportation planning experience and its previous waste acceptance activities, including a summary of its current procurement strategy for acquisition of waste acceptance and transportation services. Central to DOE's strategy is the acquisition of Regional Service Contractors (RSC) as outlined in a draft Request for Proposal (RFP) for Acquisition of Waste Acceptance and Transportation Services issued by DOE in September 1998. DOE's strategy appears to rely on private industry, through the RSC, to put in place detailed plans for fabrication and deployment of waste acceptance capabilities. While the industry endorses the concept of relying on the private sector, there is little in the Report to provide incentives and enable the private sector to succeed. The Report does not recognize the substantial challenges, both financial and practical, that will face the potential RSC contractor.

The RSC Concept

The DOE contracting strategy embodied in the Draft RFP represents a unique and innovative contracting strategy that seeks to privatize waste transport and use fixed pricing for both equipment and services. It is noted that some of the industry's previous concerns related to the draft RFP and the role of the RSC have been addressed in a limited manner by DOE in the Report. However, since many of the industry's more significant concerns regarding the draft RFP remain, further discussion between DOE and the nuclear industry on this subject is warranted.

As an example of these concerns, the draft RFP shifted the majority of the risk to the RSC while delaying payments for services until after the service is provided. This RFP contracting strategy may not prove to be practical and economic. The RFP contracting strategy must provide adequate risk sharing to potential contractors in order to obtain cost-effective services for waste acceptance and transportation.

APS comment: The contracting strategy should be revised to include more flexible and appropriate pricing structures to enable the Services to be performed as economically as possible. Fixed pricing for work this complex over such long durations would more than likely cause contractors to incorporate an unnecessary large increase in prices to cover contingencies.

It should also be noted that DOE has experienced problems in past privatization efforts and the civilian radioactive waste management program has a long history of delays. DOE should have contingency plans in place to provide timely waste acceptance and transportation services if this new and complex RFP contracting strategy proves to be impractical or uneconomic.

Timing of Waste Acceptance and Transportation Planning

The Report states that the implementation of the Waste Acceptance and Transportation Services acquisition will await a decision on the siting of the federal repository and it should not be so dependent. The DOE obligation to begin waste acceptance and transportation is unconditional and independent of such a decision regardless of what the outcome might be. The transportation equipment design and procurement lead times indicate that the process should begin now. DOE should begin planning and acquisition of waste acceptance and transportation capabilities as soon as possible to demonstrate its commitment to the timely removal of used nuclear fuel from reactor sites. Receipt of spent fuel prior to the start of repository operations should be addressed by DOE as a means to accomplish the timely removal of used nuclear fuel from reactor sites.

The DOE strategy relies on contractors, selected in 2002 or later, to plan for the procurement of transport casks and services to support operations in 2010. If impediments to timely transport and fuel acceptance, such as cask design changes, are identified in the proposed Phase A planning phase, no time is provided in the DOE strategy to resolve these issues. Given the lead times involved in resolving necessary changes, DOE should begin waste acceptance and transportation planning process immediately in order to insure that the schedule outlined in the Report can be met. DOE's budget request to Congress for Fiscal Year 2002 and beyond should reflect the necessary funding requirements for the acquisition of waste acceptance and transportation services and DOE should vigorously pursue these funding requirements during the appropriations process.

DOE should put in place plans for activities that require interfacing with Standard Contract Holders to address issues such as:

- Waste acceptance schedules
- Site service agreements
- Hardware requirements
- Near-site transportation infrastructure
- Standard Contract modifications to the extent necessary

Transportation Cask Acquisition

While DOE's reliance on the private sector for used fuel transportation technology is appropriate, its current schedule for deployment of the RSC does not appear to include adequate time for modification of current cask designs to support the transport of fuel with high burnups and enrichments, incorporate burnup credit methodology to ensure a more efficient transport system, or for the development of single purpose transport casks.

The DOE strategy for waste acceptance and transportation relies solely on the use of transport and dual-purpose cask systems that have already been licensed by private industry. As currently certified, these transport or dual-purpose systems may not be capable of transporting the spent fuel that Contract Holders plan to make available to DOE during the initial years of waste acceptance. Current transport and dual-purpose cask technologies have burnup limitations that are lower than U.S. Nuclear Regulatory Commission (NCR) limits on reactor operation. Much of the spent fuel with burnup limits within current transport cask limits of 45 GWD/MTU will be placed in dry storage at nuclear power plants by 2010. The balance of spent fuel remaining in pool storage reactor sites will have higher burnups and likely will be the first to be transported. Hence, DOE must be capable of transporting used nuclear fuel with burnups in excess of 45 GWD/MTU. DOE needs to provide time in its schedule for private industry to design, license, and fabricate transport casks for high burnup used nuclear fuel to insure timely acceptance and transportation.

DOE's current plan to rely on the private sector technologies must recognize that many Contract Holders will likely direct DOE to accept used nuclear fuel directly from the storage pools rather than fuel that has been loaded into dry storage in order to minimize dry storage at plant sites and avoid multiple handling of used fuel assemblies. The DOE procurement strategy appears to rely primarily on the use of canister-based dual purpose systems for early spent fuel transport to the repository. DOE should recognize that:

- DOE, nor its contractor, can specify which used fuel the utility provides for shipment at a particular time as part of waste acceptance and transportation.
- Since three quarters of the used fuel available when the federal facility begins operation will be stored in pools, the cost-effective acceptance of this used fuel from storage pools may result in the need for the private sector to design and license single-purpose transportation casks.
- DOE should accept used nuclear fuel in Contract Holder-acquired dual purpose casks or canisters. However, many Contract Holders are likely to direct DOE to accept used fuel directly from the storage pool during the initial phase of waste acceptance.
- DOE and its RSC cannot require that a Contract Holder load spent fuel into dual purpose canister systems prior to acceptance by DOE.
- The use of dual purpose systems, particularly at sites that have not loaded spent fuel into such systems for dry storage, could impose additional burdens on the Contract Holders.

The Phase A planning process must occur early enough to identify the types of transport casks required and allow adequate time for cask design and licensing. DOE should not simply assume that current transport or dual-purpose casks will be suitable to transport used nuclear fuel during the initial years of waste acceptance.

Cask Manufacturing Capability

DOE places great emphasis on the current cask fabrication performance and projects that performance into the future. It should be noted that this performance, while supportive of utility dry storage needs, has not been without problems and resulting delays. DOE should consider this opportunity for delay in its contingency planning.

The DOE Report only addresses the manufacturing capability with regard to transportation casks. DOE's current strategy to rely on private sector technologies for transporting used nuclear fuel could result in the use of canister-based dual-purpose systems for waste acceptance. In order to transport used nuclear fuel using these systems, canisters would have to be provided to Contract Holders along with the transportation cask. Therefore, the plan should also address canister manufacturing capability. In fact, while the transport casks would be reused, the

canisters would not and consequently require fabrication of a much larger number to support used fuel acceptance in a timely manner.

DOE should recognize that cask and canister manufacturing capability to support waste acceptance and transportation capability will have to compete with utility requirements for at-reactor storage systems. This will be true during Phase B, Acquisition and Mobilization, and for at least the first five to ten years of Phase C, Acceptance and Transportation, of the RSC contract.

The cask manufacturers list in Table A-4 is not complete. This list should include not only those manufacturers that have fabricated used fuel casks but also those that have fabricated used fuel canisters and associated components. Since DOE plans to rely on private sector technologies for the transport of used nuclear fuel, canister-based systems will require the fabrication of not only transport casks but also the dual-purpose canisters and associated hardware.

Other Issues

DOE should adopt officially and conduct its planning for waste acceptance, transportation, and disposal based on the acceptance rates discussed in the Report (see footnote on page 12 of the plan). The Report only refers to these rates as "... targets and do not create any binding obligation..."

APS comment: During the 2001 fiscal year, DOE should begin publishing the annual acceptance priority ranking and annual capacity reports as required under the contracts. These reports should also incorporate the acceptance rates from the footnote on page 12 of the plan.

DOE "proposes" accepting utility acquired transportation and storage systems. DOE should agree to accept these utility acquired systems as long as the systems are NRC certified for transportation and/or storage. In addition, if the system components are used by DOE and its contractors, then the utility should be compensated for the avoided costs associated with the use of the utility-supplied equipment.

CP&L

Carolina Power & Light Company
PO Box 1551
411 Fayetteville Street Mall
Raleigh NC 27602

File: NF-3000

Serial: NF-00A-0226

December 14, 2000

Ms. Corinne Macaluso
U.S. Department of Energy
Office or Civilian Radioactive Waste Management
Washington, DC 20585

Subject: Comments on DOE Consultation Draft Report

Dear Ms. Corinne Macaluso:

As requested in the December 4th letter from Mr. James Carlson, Acting Director of the Office of Acceptance, Transportation and Integration, we have reviewed the Consultation Draft of the "Plan for Transportation Cask Fabrication and the Deployment of Waste Acceptance Capabilities". Please consider the comments provided in this letter as the response of Carolina Power & Light Company (Contract No. DE-CR01-83NE44481) and Florida Power Corporation (Contract DE-CR01-83NE44382) both of which are now subsidiaries of Progress Energy, Inc..

Our major concerns with the report are listed below. More specific comments are provided in the attachment to this letter.

1. The report was not produced "after consultation with affected contract holders" and does not otherwise meet the requirements specified by the House Appropriations Committee. It does not demonstrate, as requested by the Committee, DOE's ability to remove spent fuel from utility sites, it does not demonstrate DOE's commitment to the timely removal of spent fuel, and it is not a plan for timely fabrication and deployment of waste acceptance capabilities. It is a report that at best lays out an incomplete strategy that does not have the concurrence of the contract holders and stakeholders.

2. The schedule laid out in the strategy would not have spent fuel removal from reactor sites starting until the 2010 repository operational date. The courts have ruled that DOE had an obligation to take spent fuel beginning in January of 1998 and that DOE cannot argue that the delay was unavoidable due to lack of

an operational repository. The schedule is therefore in violation of the requirements of our contract with DOE and the Nuclear Waste Policy Act.

3. This schedule is also inconsistent with early receipt of fuel in anticipation of a repository start date of 2010.

4. DOE should aggressively be working on the obstacles to shipment and storage of high burnup / enriched spent nuclear fuel. This will be the type of fuel in the reactor spent fuel pools which should be removed first. This gives immediate relief to the growing spent fuel inventory problem and best assures continued safe operation of commercial reactors. Such obstacles include the clad structural integrity issue and credit for actinide burnup, which are both being considered by the Nuclear Regulatory Commission in Interim Staff Guidance Documents Number 11 and 8, respectively.

Carolina Power and Light Company and Florida Power Corporation are providing comments on the referenced plan as requested. However, we reserve all of our rights and remedies under our contract and at law, including but not limited to recovery of damages against DOE and suspension of Nuclear Waste Fund payments.

We hope these comments are helpful and look forward to working with DOE on spent fuel issues.

Sincerely,

D. C. Poteralski
Manager – Nuclear Fuels Management & Safety Analysis

RKK:
Attachment
c: Mr. C. S. Hinnant
Mr. Joe Donahue
Mr. John Siphers
Mr. John Caves
Mr. Robert Kunita
Mr. Ted Williams
Mr. Hurbert Watkins (DOE)

Attachment December 14, 2000

Progress Energy's
Specific Comments on
DOE Plan for Transportation Cask Fabrication
and the Deployment of Waste Acceptance Capabilities

1. The strategy places too much reliance on the Regional Servicing Contractors (RSC) to develop a plan.
2. DOE needs to understand that DOE will be responsible for monitoring the RSCs as the utilities do with their cask vendors.
3. The four quadrant RSC approach is very cumbersome and there appears to be no recognition that the RSC selected must be acceptable to the utilities whom the RSC is intended to serve.
4. DOE does not have contract holder buy-in on the RSC strategy.
5. DOE must request appropriations funding to execute the strategy.
6. The report does not address the physical act of transportation and the requirements of DOT and NRC.
7. The report does not discuss fabrication of canisters (versus casks). This is of concern as there may be more canisters than casks.
8. DOE refers to current cask designs and does not address the need for high enrichment and high burnup fuel cask fabrication.
9. There is no discussion regarding compensation of utilities for using canister / casks / equipment / methods which would relieve DOE of program costs.
10. There is no discussion of DOE accountability in the report.
11. There are numerous waste disposal contract issues that must be resolved in order to develop a plan.

STATE OF CONNECTICUT

DEPARTMENT OF PUBLIC UTILITY CONTROL

DONALD W. DOWNES
CHAIRPERSON

December 15, 2000

James H. Carlson
Acting Director
Office of Acceptance, Transportation
and Integration
Office of Civilian Radioactive
Waste Management
Department of Energy
Washington, DC 20585

Re: Draft Plan for Transportation Cask Fabrication and the Deployment of Waste Acceptance Capabilities

Dear Mr. Carlson:

I am writing on behalf of the State of Connecticut (the "State") to join with the State of Maine in offering the attached comments on the "consultation draft" of the Department of Energy's "Plan for Transportation Cask Fabrication and the Deployment of Waste Acceptance Capabilities" (the "Plan") that must be submitted to the House Committee on Appropriations by December 31, 2000. The State has a vital interest in this Plan because Connecticut Yankee Atomic Power Plant is currently being decommissioned, and the company is prepared to transport its spent nuclear fuel and high-level radioactive waste ("SNF") to a more suitable location as soon as DOE will accept it. Because DOE does not currently plan to begin accepting SNF until at least 2010, however, Connecticut Yankee is beginning to place its SNF in dual-purpose storage/transport canisters that were designed and built by NAC International. The State urges DOE to give all stakeholders greater certainty that fuel at decommissioned commercial reactors will be moved expeditiously by affirming that it will accept and transport Connecticut Yankee's SNF that has been placed in duly licensed NAC canisters and by initiating a test of the Plan in the real world of a decommissioned plant.

Sincerely,

Donald W. Downes
Chairman, Connecticut Department of Public
Utility Control

cc: Russ Mellor, Connecticut Yankee

State of Maine and State of Connecticut
Comments on DOE's Draft
"Plan for Transport Cask Fabrication and
Deployment of Waste Acceptance Capabilities"

The States of Maine and Connecticut (the "States") commend DOE's recognition that "vendors are developing new generation dual-purpose storage and transportation systems that have the capabilities the Department requires for its waste acceptance and transportation needs." DOE also acknowledges that the NAC International systems that Maine Yankee and Connecticut Yankee propose to use are among those dual-purpose casks with the necessary capabilities. DOE can -- and should -- do more, however, so that states and utilities can address near-term SNF requirements.

First, the States urge DOE to take an active role in the Nuclear Regulatory Commission's licensing process for dual-purpose canisters. The NRC is currently considering NAC's application for a Part 71 transport license for the NAC-UMS system (Docket 71-9270), and the Commission seeks to assure, to the extent practicable, "compatibility with removal of the stored spent fuel from a reactor site, transportation, and ultimate disposition by the Department of Energy." 10 CFR § 72.236(m). DOE's timely comments on the NAC application will permit the NRC to consider DOE's requirements in deciding whether any modifications are desirable to accommodate DOE before licensing this dual-purpose system for transport. The States ask DOE to include in its Plan a commitment to participate directly in NRC cask licensing proceedings to help guide the private sector development of storage/transport systems that will meet DOE's needs.

Second, DOE's Plan should assure states and utilities that DOE will accept spent fuel "as is" if it has been stored in NRC-licensed dual-purpose canisters. The States recognize that technological developments could dictate some changes in canister design over the next decades. Nevertheless, because of the delay in beginning SNF removal, decommissioned plants like Maine Yankee and Connecticut Yankee must move all of their SNF into dry storage now. That requires an immediate decision on which system to use. In order for utilities and states to plan these decisions prudently, DOE should state in the Plan that, unless health and safety considerations clearly dictate otherwise, it will accept SNF for transport if (1) DOE had an opportunity to inspect the SNF before it was sealed in the canisters, (2) the SNF has been continuously stored in NRC-licensed, dual-purpose interim storage/transport canisters, and (3) the SNF has experienced no events during interim storage or transport that are outside the bounding site environmental and natural phenomena for which the dual-purpose system was analyzed and licensed. Such a statement will give stakeholders an additional degree of certainty that will permit reasonable planning.

Third, DOE's Plan should include a pilot program to demonstrate its capability to transport SNF using systems developed entirely by the private sector. Several shutdown plants in New England (Maine Yankee, Connecticut Yankee, and Yankee Atomic) will be completely decommissioned -- including their spent fuel pools -- by 2004, and all of their SNF will have

been moved to dual-purpose storage/transport canisters. DOE's Plan should include the advance purchase of one or more transport canisters, transport vehicles, and necessary loading equipment that can be used in the event that any SNF in those states must be moved before DOE is ready to begin accepting all of their SNF. These components will all be necessary eventually, and their early acquisition could give DOE concrete experience in purchasing and testing essential transport equipment. Such a pilot program would also tangibly demonstrate DOE's commitment to build the infrastructure that will be necessary to remove SNF from commercial reactor sites, as DOE has promised. Finally, this modest program could be used to confirm the efficacy of DOE's Plan.

The States applaud the steps that DOE has taken in developing its Plan. We urge you to include these additional steps that will benefit DOE and stakeholders by providing greater certainty. The States stand ready to cooperate with DOE to transport spent nuclear fuel to more appropriate sites as quickly and as expeditiously as possible.

jpbroschak@cmsenergy.com on 12/15/2000 04:00:48 PM

To: Corinne Macaluso/HQ/RWDOE@CRWMS
cc: djmalone@cmsenergy.com@INTERNET, nlhaskell@cmsenergy.com@INTERNET, tjpalmisano@cmsenergy.com@INTERNET

Subject: Consumers Energy Comments on DOE-OCRWM Consultation Draft Plan

Please accept the following comments on the subject plan:

(See attached file: Consultation Draft Comments.doc)

Consumers Energy Company Comments on DOE-OCRWM Plan for Transport Cask Fabrication and Deployment of Waste Acceptance Capabilities

Consumers Energy has reviewed the Department of Energy's Office of Civilian Radioactive Waste Management (DOE-OCRWM) consultation draft entitled: "Plan for Transport of Cask Fabrication and Deployment of Waste Acceptance Capabilities", hereafter referred to as "the Plan." Consumers Energy has been extensively involved in the various aspects of the dry spent nuclear fuel storage industry for over 10 years including the design, licensing, fabrication, and operation of dry fuel systems. Therefore, the following comments are based on past and on-going experience gained from these activities and provide a realistic perspective on the proposed Plan.

The stated genesis of the Plan comes from the House Committee on Appropriations concern about the steady erosion of Administration support for activities associated with the waste acceptance and transportation functions of OCRWM. The Committee requested that the DOE demonstrate its ability to remove spent fuel from utility sites, and, in particular, its commitment to the timely removal of spent fuel. The Plan is roughly divided into 2 areas: a summary description of the Regional Servicing Contractor strategy embodied in the Draft Request for Proposal (RFP), "Acquisition of Waste Acceptance and Transportation Services for the Office of Civilian Radioactive Waste Management", hereafter referred to as "the RFP", and, a cursory analysis of fabrication capabilities necessary to support the RFP. Therefore, in order to provide substantive comments to the claims made in the Plan, significant feedback must be provided on the RFP.

As stated in the Plan, DOE produced a new version of the RFP in September 1998. This version was based on industry feedback and review of the initial versions of the same RFP. Consumers Energy participated in the reviews of the initial RFP versions. The industry as a whole was very pessimistic about the likelihood of success of the Regional Servicing Contractor approach that forms the backbone of the RFP. Those comments have been documented previously and provided to DOE. The September 1998 version of the RFP did little to resolve the more substantive issues raised by industry comments. In our view, DOE did not address them and left them to be resolved at a later date. After issuing the September 1998 version of the RFP, DOE essentially suspended activity on further resolution of the identified issues with the RFP. Since the Plan is based on the successful execution of the RFP, and since the likelihood of success of the RFP is in question until the substantive issues are resolved, it is difficult to understand why DOE would claim that the RFP demonstrates its ability to remove spent fuel from utility sites.

Some of the more substantive issues associated with the RFP include the following: To our knowledge, no single organization exists that can supply the full scope of services requested by the RFP. The RFP calls for a minimum of 2 and maximum of 4 such organizations. Therefore, multiple consortiums would need to be formed in order to respond to the RFP. The amount of spent fuel transportation experience and capability that exists within this country is limited due to the relatively small amount of activity that

has occurred in recent years. In our opinion, to believe that the existing experience base could develop into multiple organizations, as required by the RFP, is not realistic. There is a large difference between possibility and reality. We agree that the RFP approach is possible, but it is hardly realistic in the time frames envisioned and does not remotely demonstrate the capability requested by the House Committee on Appropriations.

Another major issue industry has with the RFP involves the financial arrangement initially proposed by DOE. DOE first proposed that no payment would be provided for services rendered until fuel is shipped and accepted at its final destination. With the inherent difficulties in the timely movement of spent fuel in addition to the enormous cost involved to adequately prepare for and conduct these activities, the financial risk to the providing organizations under the initial DOE proposal is unacceptable. In general, the RFP shifts all risk from the government to private industry and the risks are overwhelming. DOE tabled this issue in the September 1998 version of the RFP stating that the exact financial arrangement would be determined at a later date. Unless a mutually acceptable financial arrangement can be developed, it is highly unlikely that private industry would be able to form between two and four consortiums willing to assume these liabilities. Again, with the current state of the RFP, it should not be used as a demonstration of capability. Many other significant issues still exist with the Regional Servicing Contractor strategy which also could prevent the RFP from resulting in success.

As with these specific RFP issues, the Plan does little to address the risks and contingencies associated with the successful movement of spent fuel to the magnitude envisioned by OCRWM. A success touted by the DOE involved the start-up and operation of the Waste Isolation Pilot Plant (WIPP). Although that facility has finally started receiving shipments in 1999, the development and start-up of the facility was delayed for nearly two decades due to a wide range of issues. No mention of these difficulties is provided in the Plan. The DOE also cited the large number of shipments of spent fuel that have occurred over the past 40 years as a basis for success of the Plan. To our knowledge, the most representative operational campaign analogous to the Plan involved the movement of spent fuel from Shoreham to Limerick several years ago. Again, this single shipment campaign experienced extensive delays and difficulties that were not mentioned at all in the Plan. Presumably, these difficulties and associated risks would be transferred to the Regional Servicing Contractors through the RFP. Despite DOE's attempt to shift the source of the service to the private sector through the RFP, Consumers Energy submits that DOE is still responsible for demonstrating the capability to oversee and accomplish the overall strategy. Without an extensive analysis of risks and associated contingencies to reduce or eliminate these risks, the Plan is inadequate. It serves nothing more than to state intentions which may turn out to be meaningless.

The Plan also attempts to address fabrication capability and supposedly demonstrate that adequate capability does or will exist. Consumers Energy agrees with the DOE that the key issues in determining availability of fabrication capabilities include determinations of: availability of suitable manufacturing facilities, availability of adequate trained and qualified staff, adequate supplies and sources for specialized materials and components, and adequate quality assurance programs and procedures in place. In order to assess

these key issues, DOE documented the claims of two dry fuel component fabricators: Precision Components Corporation (PCC) and US Tool and Die (UST&D). In summary, these two fabricators stated that they can produce upwards of 20 canisters per year. Taken in isolation, these claims suggest that these two fabricators alone could supply all of the projected Plan canister requirements. Our experience with fabricators such as PCC and UST&D suggests that fabricators overstate their actual performance capability. From a simple business perspective, the fabricators know they won't get the work unless they state they can perform. Oftentimes, the capacity necessary to meet contractual requirements is not added until after the contracts have been signed. The reason for this approach is simple. Private industry organizations do not make large capital investments in capacity unless they have a reasonable likelihood of achieving an acceptable return on that investment. Again, the financial structure of the RFP must be mutually acceptable to all parties to ensure that the reward is balanced with the risks. Until this issue, in particular, is resolved, adequate fabrication capability cannot be guaranteed solely from fabricator's verbal claims.

In general, the entire Plan discussion of the stated key fabrication capability issues lacks sufficient analysis to justify the conclusions. In order to determine availability of suitable manufacturing facilities, the Plan must factor in competing demands for these fabrication resources. For example, the same fabrication facilities that would be building the DOE-related casks are also building the dry fuel components for individual utilities to meet their on-site storage needs. The existing fabrication community is currently struggling to meet these storage system deliveries. Extensive delays and missed delivery dates are more the rule than the exception. In addition, the demand for storage systems is increasing rapidly due mostly because of DOE's delay in removing spent nuclear fuel from utility sites. The Plan makes no attempt to analyze this situation. The Plan also makes no attempt to analyze for other competitor industry needs since these same fabricators build similar components for other industries. Without this type of detailed analysis, the determination of availability of suitable manufacturing facilities and adequate trained and qualified staff is not complete.

The Plan also contains no provisions to determine adequate supplies and sources for specialized materials and components. Many of the dual-purpose systems use relatively exotic materials. These materials are supplied by organizations other than the fabricators. This market also operates on the principles of supply and demand and has a wide customer base. A fabricator's stated capability and capacity is dependent on its ability to obtain these materials, even though an individual fabricator has limited influence over the supply of these materials. The Plan completely ignores this significant analysis area. Without an adequate analysis of material availability, the Plan does not demonstrate the requested capability.

In summary, the Plan lacks provisions to address many key issues identified by both industry and DOE and does not achieve the required purpose of demonstrating the Department's ability to remove spent fuel from utility sites. Consumers Energy believes that the inadequacy of the Plan does demonstrate the Department's lack of commitment to the timely removal of spent fuel which is the stated concern of the House Committee on Appropriations.

DAIRYLAND POWER COOPERATIVE • 3200 EAST AVE. SO. • P.O. BOX 817 • LA CROSSE, WISCONSIN 54602-0817

WILLIAM L. BERG
President and CEO

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December 15, 2000

VIA E-MAIL

Corinne Macaluso
Office of Civilian Radioactive Waste Management
Department of Energy
Washington, DC 20585

Dear Ms. Macaluso:

SUBJECT: Comments on Department of Energy (DOE) "Plan for Transportation Cask Fabrication and the Deployment of Waste Acceptance Capabilities"

Dairyland Power Cooperative (DPC) appreciates the opportunity to comment on the recently issued Department of Energy (DOE) "Plan for Transportation Cask Fabrication and the Deployment of Waste Acceptance Capabilities."

DPC respectfully offers the following comments for consideration:

1. DPC believes the DOE should commit to reimbursing utilities for money spent in modifying and upgrading their facilities to accommodate loading spent nuclear fuel (SNF) in large multipurpose canisters (MPC) for rail shipment versus shipping SNF in small truck casks as originally contemplated, thus greatly reducing the number of shipments and risks involved.

2. DPC believes that DOE can and should accelerate acceptance rates of SNF from those proposed in footnote 15 of the "Consultation Draft Plan" to at least 3,000 MTHM (metric tons of heavy metal)/year within 2 years after the first receipt of SNF by DOE.

3. DPC believes the DOE should commit to reimbursing utilities, based on avoided costs to the DOE, for monies already spent by utilities to prepare, package and move SNF to private dry fuel storage facilities on or off reactor sites.

4. DPC believes DOE should take maximum advantage of private industry efforts to license offsite independent spent fuel storage installation (ISFSIs), development of transportation equipment and infrastructure, etc. related to the shipment and storage of spent fuel, such as the efforts currently being undertaken by Private Fuel Storage, LLC in Utah.

Once again, DPC appreciates this opportunity to provide comments on this issue. If you have any questions, please contact Dr. Seymour J. Raffety at 608-689-4222, or e-mail SJR@dairynet.com.

Sincerely,

DAIRYLAND POWER COOPERATIVE

William L Berg

William L. Berg
President and CEO

WLB:SJR:css

Hlnk_Barker@dom.com on 12/14/2000 03:34:18 PM

To: Corinne Macaluso/HQ/RWDOE@CRWMS
cc: Marvin_Smith@dom.com@INTERNET

Subject: Comments on letter from Mr. James H. Carlson dated 12/4/2000

See attached (See attached file: Comments on DOE Consultation Draft.doc)

Thank you for the opportunity to provide this input.

December 14, 2000

Mr. James H. Carlson
Acting Director, Office of Acceptance,
Transportation and Integration
Department of Energy
1000 Independence Avenue, NE
Washington, DC 20585

Dear Mr. Carlson:

Our comments on the "Plan for Transport Cask Fabrication and Deployment of Waste Acceptance Capabilities" are attached. We appreciate the opportunity to comment on this report and urge DOE to move forward with actions to establish systems to begin timely acceptance to the repository. As noted in the attached comments, we are concerned that DOE may not have provided adequate time in its proposed schedule to develop waste acceptance and transport capability. We also recommend that DOE evaluate options other than NRC regions for selecting service contractors. With the industry restructuring that has occurred since DOE originally published its Regional Service Contractor concept, many utilities (including Dominion Generation) will have nuclear power plants in more than one NRC region. Dominion would prefer to have one service contractor for all of its plants rather than having to work with different contractors for each NRC region.

Please contact Mr. M. L. Smith with any questions at 804-273-2244.

H. H. Barker, Manager
Nuclear Fuel Procurement

Comments on DOE Consultation Draft Report to the House Committee on Appropriations

Plan for Transportation Cask Fabrication and the Deployment of Waste Acceptance Capabilities

- The subject DOE consultation draft report is primarily a discussion of the history of DOE transportation experience along with a summary of DOE procurement strategy. It is not a plan for Transportation Cask Fabrication or Deployment of Waste Acceptance Capabilities.

- The DOE strategy of using Regional Service Contractors relies on these contractors to work with contract holders to plan and then carry out a program to transport spent fuel from the contract holders to the DOE repository. This strategy does represent an approach that maximizes use of private industry as required by the Nuclear Waste Policy Act.

- Because of significant changes that have occurred in the utility industry in recent years, DOE should consider options other than NRC regions for establishing service contracts. Industry restructuring has resulted in many companies (including Dominion) being located in more than one NRC region. Dominion would prefer to have one service contractor for all of its units rather than being forced to establish working relationships with multiple Regional Service Contractors.

- The DOE contracting strategy embodied in the Draft Request for Proposal "Acquisition of Waste Acceptance and Transportation Services for the Office of Civilian Waste Management" represents a unique and innovative contracting strategy that seeks to privatize waste transport and use fixed pricing for both equipment and services. This contracting strategy may or may not prove practical or economic. DOE has experienced problems in past privatization efforts and DOE should have contingency plans to provide timely transport and fuel acceptance services if this new and complex contracting strategy proves impracticable or uneconomic.

- The DOE transportation strategy relies on contractors selected in 2002 or later to plan for procurement of transport casks and services. If impediments to timely transport and fuel acceptance are identified in the proposed Phase A planning phase, no time is provided in the DOE strategy to resolve these issues. DOE should proceed with this Phase A planning process immediately.

- The DOE strategy for transport services appears to rely entirely on the use of transport or dual-purpose casks that have already been licensed by private industry. Dominion does not believe that any currently licensed transport or dual-purpose cask is available to transport the spent fuel that we plan to send DOE with our early allocations. Current transport and dual-purpose casks have burnup limitations that are significantly lower than NRC limits on reactor operation. Dominion expects that all

of the spent fuel with burnups within current transport limits will be in dry storage at Surry and North Anna by 2010. DOE needs to provide time in its schedule for private industry to design, license, and fabricate transport casks for high burnup spent fuel (up to 62,000 MWD/MTU) to insure timely acceptance and transport.

- The DOE procurement strategy seems to rely primarily on the use of dual-purpose casks for early spent fuel transport to the repository. It should be noted that Dominion plans that the initial spent fuel designated for DOE acceptance will be spent fuel in the pool when repository operation begins and not spent fuel in either storage only casks or dual-purpose casks. Dominion does not believe that DOE or its Regional Services Contractors can require that spent fuel be loaded into dual-purpose casks prior to acceptance by DOE or transport to the repository.

- DOE should recognize that use of dual-purpose casks for accepting spent fuel from storage pools imposes additional burdens on the contractor holder. DOE should accept spent fuel for transport from utilities that have already loaded their fuel into dual-purpose casks, but recognize that conventional transport casks have to be available for the majority of spent fuel that will still be in pool storage. As noted above, the Phase A planning process must occur early enough to identify the types of casks required and allow time for cask design and licensing - not simply assume that current transport or dual-purpose casks will be suitable.

- As noted in the consultation draft, fabrication capability is available in the US and abroad to fabricate the transport casks that will be required. However, the consultation draft does not appear to consider that contract holders will be placing large orders for storage and dual-purpose casks at the same time that DOE plans to order transport casks for the repository. The existing fabrication shops may have difficulty meeting this demand - especially within the schedules assumed by DOE.

Exelon Generation
1400 Opus Place
Downers Grove, IL 60515-5701

www.exeloncorp.com

Exelon SM
Nuclear

December 15, 2000

United States Department of Energy
Office of Civilian Radioactive Waste Management
ATTN.: Ms. Corinne Macaluso
1000 Independence Ave. SW
Washington, DC 20585

Subject: Department of Energy Report to the House Committee on Appropriations "Plan for Transportation Cask Fabrication and the Deployment of Waste Acceptance Capabilities," December 2000

Dear Ms. Macaluso:

Please find attached Exelon Nuclear's comments regarding the subject consultation draft. If you have any question regarding these comments, please contact James Malone at 630-663-7028.

Respectfully yours,

James P. Malone
Nuclear Fuels Vice President

cc: W. Bohlke
A. Levin
M. Eyre

Summary of Comments

The Report is intended to address Congressional concerns over the "steady erosion of Administration support for activities associated with the waste acceptance and transportation functions of the Office of Civilian Radioactive Waste Management." In that regard, the Report should focus on the potential impacts that DOE's plans could have on nuclear utilities and their ability to have spent nuclear fuel moved off site in a timely manner. For the reasons discussed below, the Report does not give us confidence that DOE will remove spent fuel on a timely basis.

Specific Comments

Vendor Commitments to Infrastructure Development and Delays Due to NRC Licensing

The DOE has assumed cask contractors (vendors/fabricators) will commit to infrastructure development under Phase A without firm financial commitment from the DOE. DOE states "The Department's plan allows approximately six years from inception until the beginning of actual spent nuclear fuel transportation activities in Phase C to develop adequate manufacturing capabilities and acquire the initial cask fleet and other equipment." The receipt facilities at the geologic repository will require a NRC site-specific license issued under 10 CFR Part 72. The NRC will demand detailed drawings and supporting documentation of the proposed design, and will not provide a license until such drawings and documentation have been fully approved.

Contractors will not construct infrastructure "at risk" in anticipation of this one-of-a-kind NRC approval. They are unlikely to make any commitments during the two years of Phase A, or to spend significant resources prior to NRC approvals – which may not occur until one or two years into Phase B. DOE's reliance upon the first four years of Phase B for the contractors to "cover initial equipment acquisition/fabrication and pre-operational mobilization activities" may be unrealistic considering the NRC approval cycles.

Additionally, the Department must acknowledge that during the timeframe anticipated for design and construction of transportation casks and repository site infrastructure, the DOE will be competing for resources with the accelerating needs of the utilities for dual purpose spent fuel management systems, from a limited number of qualified manufacturers. DOE is still determining the availability of fabrication capabilities and only a schematic implementation schedule is provided with no support for any of the tentative milestones. DOE should provide greater assurance that the manufacturing capability will be adequate to avoid any substantial delays in the removal of spent fuel from reactor sites.

Availability of Utility Systems for Use by DOE Contractors and Potential Delays in Cask Construction

The DOE has assumed "Many of the dual-purpose cask systems currently being licensed or manufactured and deployed would potentially be used for the transport of the spent nuclear fuel to a Federal repository..." This is unlikely to occur in the short run. Utilities (of which there will be many by the time DOE begins repository operations in 2010) which have installed Independent Spent Fuel Storage Installations ("ISFSI's") and have moved spent fuel to dry storage are unlikely to ship spent fuel residing at the ISFSI first. In fact, it is more likely that utilities will ship spent fuel directly from their spent fuel pools, rather than pay for the cost of additional dry storage system components as fuel is continually shipped from the ISFSI and additional spent fuel is discharged from the reactors. Additionally, this need for the utilities to ship fuel from the spent fuel pools first will lead to the need to design transportation casks capable of handling five year cooled fuel – of which there are a very limited number today.

Fixed Price Contract Strategy

The Department needs to clarify the contracting strategy noted in the Report. Fixed price contracting generally works best with identified bonuses and penalties – which should be applied to the Department as well as its contractors, to reflect performance in waste acceptance. (Note that DOE performance bonuses and penalties should not arise from the Nuclear Waste Fund.)

Communications Strategy

Greater clarity is necessary regarding the delineation of responsibilities for communication with affected State, local and tribal governments. The DOE cannot abrogate its responsibilities by shifting any of its communications authority to the Regional Servicing Contractors.

Florida Power & Light Company, P. O. Box 14000, Juno Beach, FL 33408-0420

FPL

December 15, 2000

Mr. James H. Carlson, Acting Director
Office of Acceptance, Transportation and Integration
Office of Civilian Radioactive Waste Management
Department of Energy
Washington, DC 20585

Dear Mr. Carlson:

Subject: Plan for Transportation Cask Fabrication and the Deployment of Waste Acceptance Capabilities – Consultation Draft

Florida Power & Light Company (FPL) is the holder of Contract No. DE-CR-01-83-NE-44383 for the disposal of spent nuclear fuel and/or high level waste, pursuant to the Nuclear Waste Policy Act. FPL received a copy of the Plan for Transportation Cask Fabrication and the Deployment of Waste Acceptance Capabilities (hereafter the Consultation Draft) for review and comment on December 7, 2000. FPL is pleased to submit the following comments on the Consultation Draft.

FPL is familiar with the previously published December 1996 and November 1997 drafts of the Request for Proposal for Waste Acceptance and Transportation Services for the Office of Civilian Radioactive Management (RFP). FPL submitted comments on these drafts on May 15, 1997 and April 10, 1998, respectively. FPL wishes again to point out that DOE's proposed initiation date for the transportation and waste acceptance activities is in breach of DOE's unconditional obligation to begin acceptance of commercial spent nuclear fuel by January 31, 1998, as determined by the U.S. Court of Appeals for the District of Columbia Circuit in the Indiana-Michigan Power Company v. DOE and Northern States Power Company v. DOE decisions, and by the U.S. Court of Appeals for the Federal Circuit in the Maine Yankee Atomic Power Company v. United States and the Northern States Power Company v. United States decisions. In this regard, these comments are not intended to and should not be construed at any time as an acceptance of any delay pertaining to DOE's contractual obligations or a waiver or release of any claim against DOE for the breach of its unconditional statutory obligation to take title and dispose of spent fuel from commercial nuclear power plants beginning on January 31, 1998.

As noted above, FPL previously submitted comments on the draft RFPs for the acquisition of waste acceptance and transportation services. However, FPL is also concerned that inadequate planning or inadequate funding would lead to additional unacceptable delays in the acceptance of commercial spent fuel. We therefore urge DOE to ensure that these activities are adequately budgeted and properly supported so that funding for transportation and waste acceptance services will not be a cause for any further delays to the acceptance and disposal of commercial spent fuel.

In addition, despite the excellent safety and success record that industry has experienced over many years of shipments of spent fuel and other radioactive materials, FPL is concerned that DOE may be underestimating the public and political interaction that will be necessary for DOE to demonstrate that shipping commercial spent fuel will not have an adverse effect on the health and safety of the public or the environment. FPL recommends that DOE fully consider these impacts in their transportation planning to avoid unnecessary delays.

Further, while the Consultation Draft appears to represent DOE's strategy for these activities, there will be no real plans developed to implement these strategies until Phase A of the contracting process. While industry has progressed significantly in the development of spent fuel storage and transportation technology we believe the following challenges must be factored into the Plan for Transportation Cask Fabrication and the Deployment of Waste Acceptance Capabilities.

- There is very little specific guidance from DOE on which casks/canisters and what waste form acceptance criteria DOE will ultimately adopt for acceptance at the repository. Contract holders have been forced to make decisions now in order to accommodate additional needed storage capacity at their sites, without the benefit of having specific guidance from DOE.
- Several contract holders have made significant changes to their facilities and equipment since DOE completed its Near-Site Transportation Infrastructure Project, which means in many instances the infrastructure will have changed.
- We believe that DOE may be overly optimistic concerning future canister and cask fabrication capabilities as evidenced by the statement that "current industry performance has shown that adequate manufacturing capacity is available to meet current needs". The demand for new casks and canisters will continue to increase significantly as spent fuel pools reach their fully racked capacity and cask fabrication capability may not be able to keep up.

Additionally, FPL believes that DOE may have opportunities to test and demonstrate its capability by piloting the implementation of its transportation and waste acceptance services and training protocols. The development of one or more private temporary storage facilities may afford DOE with opportunities to provide contract holders and other stakeholders with varying levels of transportation and training support as contemplated in the draft RFP and Section 180(c) of the Nuclear Waste Policy Act. The DOE should assess and seek out these opportunities to demonstrate their capabilities for providing the training and transportation services to contract holders and other stakeholders, and FPL recommends that the Consultation Draft be revised to state that DOE will pursue these opportunities.

FPL appreciates the opportunity to comment on the Consultation Draft. Should you have any questions concerning our comments to the Consultation Draft please contact Mr. Al Gould at (561) 694-4199.

Sincerely yours,

J. A. Stall
Vice President
Nuclear Engineering

HZ USA

Hitachi Zosen U.S.A. Ltd.

A SUBSIDIARY OF HITACHI ZOSEN CORPORATION
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December 15, 2000

Mr. James H. Carlson
Acting Director, Acceptance, Transportation & Integration
Office of Civilian Radioactive Waste Management
U.S. Department of Energy
1000 Independence Avenue, SW
Washington, D.C. 20585

RE: Plan for Transport Cask Fabrication and Deployment of Waste Acceptance Capabilities

Dear Mr. Carlson:

Pursuant to your outstanding request to U.S Department of Energy (DOE), contract-holders for comment on the department's above referenced consultative draft plan as requested by the House Committee on Appropriations, Hitachi Zosen USA Ltd. and Hitachi Zosen Corporation (HZ) wish to offer for your consideration our perspective for incorporation into the pending December 31, 2000 submission to the U.S. Congress.

As you are aware, HZ is both a global manufacturer of fabricated spent fuel management systems and a referenced potential supplier of transportation casks in your consultative draft.

In general, our observations are as follows:

- HZ has considerable manufacturing capacity available, which can be deployed to meet the DOE's projected spent fuel acceptance requirements for transportation casks.
- HZ estimates it can deliver a transport cask with a five month lead time as defined in the consultative draft, or in other words, 16 months or less after contract signing.
- HZ's experience base in the U.S. and worldwide, which extends over three decades, meets or exceeds the experience of the two principal manufacturers identified in the consultative draft as "main" cask manufacturers. Consequently, HZ requests that you amend table A-4 to include HZ.
- In HZ's opinion, more than ample fabrication capability and capacity exists to meet the department's transportation cask requirements.
- It is also our view that maximum reliance on the private sector is to be encouraged as proposed in the consultative draft.

Further amplification of the above points are as follows:

HZ Manufacturing Capacity

HZ has significant manufacturing capability available; specifically this includes:

- A minimum capacity of 24 thick-wall casks plus baskets/yr or 50 thin-wall canisters/yr
- Additional 25 casks/yr capacity with the addition of another production line, for a total capacity of 50 casks/yr
- 20,000 sq. ft. dedicated cask assembly shop newly built in 1997
- 316,000 sq. ft. main machinery bay
- 65 employees dedicated to cask fabrication plus additional 200 as needed (11,000 employees total)
- HZ has the capacity to deliver 25 casks/yr with a five month lead time based on its current fabrication line. HZ has the ability to double this production within one year by adding an additional line.
  A five month lead time means five months from contract signing (two months for document production and acceptance, and 3 months for procurement). Fabrication time is approximately 10 months. In short, HZ can deliver a transportation cask 16 months after order placement, and two per month thereafter at full capacity of the current line, and four per month with the addition of a second fabrication line.

HZ Manufacturing Capability

Hitachi Zosen is one of the world's leading heavy industrial machinery manufacturers and providers of large-scale integrated solutions. Founded in 1881, Hitachi Zosen is an 11,000 employee, $4.5 billion internationally active company with operations in Asia, Europe and the US, and is the flagship of a group of over 95 firms.

In addition to nuclear plant equipment, the company's existing product lines include, shipbuilding and repair (commercial and defense), environmental systems and plant facilities, steel structures, construction machinery, heavy machinery, robotics, precision machinery, biotechnology and electronics and information systems.

HZ is a comprehensive and experienced supplier of spent nuclear fuel systems, providing designing, testing, licensing, manufacturing, leasing, maintenance and technical services to its domestic and international customers.

HZ's cask fabrication is conducted on HZ-owned 16 million ft^2 industrial works complex where 1,000 workers engage in shipbuilding and industrial machinery manufacturing.

Some additional highlights:

Crane size
- Cask assembly bay: 100 tons and 50 tons
- Welding bay: 200 tons and 100 tons
- Main assembly bay: 500 tons

Cask output capacity
- Thick wall casks with baskets (over 100 tons): 2 units/month
- Thin wall canisters or baskets: 4 units/month

Quality Assurance
- ISO-9001
- 10CFR50 Appendix B
- ANSI N45.2
- ASME Sec. III
- NCA-4000
- 10CFR21
- 10CFR71/7

HZ delivered its first cask in 1978, and since then has delivered an additional 86 units, 29 of which were delivered to customers in the US and Europe.

HZ has delivered 41 large transport casks to customers globally.

Selected Deliveries

Cask Name	Type	Quantity	Year Delivered	Customer	User
HZ-75T	Transport	4	1978 - 79	Ocean Cask Leasing Co.	10 Japanese utilities
		1	1981		
		1	1993		
NH-25	Transport	1	1979	Nippon Nuclear Fuel Development Co.	Nippon Nuclear Fuel Development
Excellox - 3B	Transport	10	1982	BNFL	Tokyo Electric Power
Excellox - 4	Transport	4	1982 - 84	BNFL	Japanese utilities
TN - 12/2	Transport	7	1985 - 87	BNFL	Tokyo Electric Power
NAC 100S/T	Storage	1	1988	NAC International	Virginia Electric Power
NFT - 14P	Transport	7	1997	Nuclear Fuel Transport Co.	Nuclear Fuel Transport
NFT - 10P	Transport	3	1997	Nuclear Fuel Transport Co.	Nuclear Fuel Transport
TN - 68 (basket)	Dual	9	1999 - 2000	Precision Components Corp./ Transnuclear	PECO
NAC LWT	Transport	3	2000	NAC International	NAC International
JAPC Storage Cask	Storage	7	2000 - 2001 (now fabricating)	Japan Atomic Power Corporation	Japan Atomic Power Corporation
NAC MPC Canister	Dual	16	2000 - 2001 (now fabricating)	NAC International	Yankee Atomic Electric Corp.
NAC MPC Canister	Dual	43	2001 – 2002 (now fabricating)	NAC International	Connecticut Yankee Atomic Power Corp.

HZ is currently fabricating 16 NAC MPC canisters for Yankee Rowe (the first 2 will be delivered to the site in December of this year) and 43 NAC MPC canisters for Connecticut Yankee.

Recent US deliveries include 9 TN-68 baskets in 1999/2000 to Precision Components Corporation (PCC) for delivery to PECO's Peachbottom plant and 2 of 3 NAC LWT casks in 2000.

In closing, Hitachi Zosen appreciates the opportunity to provide the above perspective and comment on the Consultative Draft. We look forward to working with the Department of Energy as it moves ahead to further develop its transport cask fabrication and deployment of waste acceptance capabilities, particularly given the importance of this initiative to our U.S. customers and the nuclear energy industry in general.

Sincerely,

Kiyokazu Uehara
President
Hitachi Zosen USA Ltd.

Hitachi Zosen USA Ltd & Hitachi Zosen Corporation
Addition to Consultation Draft
Table A-4 Cask Fabricators

Name **Address** **Phone** **Website**	**Casks Recently Built**	**Facility Size** **Employees** **Other Notes**	**Remarks**
Hitachi Zosen Corporation (Tokyo Main Office) Palaceside Building 1-1 Hitotsubashi 1-chome Chiypda-ku, Tokyo 100-8121 Japan 011-81-3-3217-8488 www.hitachizosen.co.jp Hitachi Zosen USA, Ltd. 767 Third Avenue, 17th floor New York, NY 10017 212-355-5650 Mr. Dan Cintron - Manager	TN - 68 (basket) NAC LWT NAC MPC	- 20,000 sq. ft. dedicated cask assembly shop - 316,000 sq. ft. main machinery bay - 65 employees dedicated to cask fabrication, plus additional 200 as needed (11,000 employees total) - Fabricate casks and canisters - Capacity of minimum of 25 casks/yr or 50 canisters/yr	- Delivered 12 transport casks over last 3 years (US and Japanese design) - Delivered 9 TN-68 baskets to PCC - Delivered 2 of 3 NAC LWT. Remaining in Jan. '01. - Deliver 2 of 16 NAC MPC canisters in Dec. '00

IONICS, INCORPORATED

P.O. BOX 99, BRIDGEVILLE, PENNSYLVANIA 15017
PHONE 412-257-2029 FAX 412-257-1270

December 15, 2000

Mr. James H. Carlson
Acting Director, Acceptance, Transportation & Integration
Office of Civilian Radioactive Waste Management
U.S. Department of Energy
1000 Independence Avenue, SW
Washington, D.C. 20585

Dear Mr. Carlson:

As a leading U.S. fabricator of nuclear technology systems, Ionics (Bridgeville Division) is pleased to provide comments on the Department's consultative draft "Plan for Transport Cask Fabrication and Deployment of Waste Acceptance Capabilities" as requested by the House Committee on Appropriations in the Energy and Water Development Appropriations Act for Fiscal Year 2001.

Given the importance of this issue to domestic energy security and the nuclear energy industry, Ionics applauds this initiative and looks forward to a continuing dialog on this subject with the Department as it moves forward to meet its obligation to utility contract-holders for timely waste acceptance and transportation from utility sites.

As background, the Ionics Bridgeville Division, is a member of the Ionics Equipment Business Group, which in 1999 generated over $210M in revenues. The Ionics Equipment Business Group designs, engineers, constructs, installs and owns-and-operates water and waste management systems globally – and is an internationally recognized fabricator for spent fuel management systems for U.S. utilities, the Department of Defense, Department of Energy and the U.S. Navy. Ionic's U.S. reactor supplier customers also include Westinghouse, General Electric and Babcock & Wilcox.

Founded in 1948, Ionics Incorporated (NYSE-ION) has 2,600 employees worldwide and more than 100 offices, with total revenues of $358.2M this past calendar year.

Ionics Bridgeville is unique in several respects:

- It has the first and only state-of-the-art, dedicated facility custom designed in the United States specifically to manufacture dual and multi-purpose canister and cask systems;
- It is a turnkey facility containing ***all*** major fabrication equipment in-house (with the planned receipt of new rolling equipment in 2001);
- We project transport systems capacity at a minimum of 36 casks annually (with six months lead-time as defined in Appendix A), which makes it the largest fabrication capacity in the U.S. In light of Ionics' capabilities and experience, Ionics will focus its comments on Appendix A (Cask Status and Fabrication Capabilities).

Specifically:

1. **The present consultative draft omits reference to Ionics' capabilities and experience, and we respectfully request that you update Table A-4 to include Ionics as follows:**

Name Address Phone Website	Casks Recently Built (partial list)	Facility Size Employees Other Notes	Remarks
Ionics Inc. Bridgeville Division3039 Washington Pike, Bridgeville PA 15017 Phone: 412-257-2029 Fax: 412-221-8054 www.ionicsinc.com	• DOE Test Train Shipping Casks • Navy Spent Fuel Shipping Casks • NAC UMS Casks and Canisters	• 250,000 sq. ft. with lifting capacity of 300 tons • 250 employees • Can fabricate casks & canisters • Capable of 36 Casks and 48 canisters per year • Assume 6 month lead time	• Delivering 60 UMS Canisters • Delivering 48 UMS concrete casks • ASME NPT Certificates of Authorization for Division 1 and NTP for Division 3 • Nuclear Quality Assurance Program meets or exceeds ASME NCA 3800 & 4000, NQA-1, 10 CFR 50 appendix B, 10CFR71-subpart H and 10CFR72 subpart G

2. **Ionics agrees as noted in Appendix A (A-1) that "although the demand for cask manufacture in the United States has not been great, it is increasing to meet the increased demand for reactor on-site dry storage..." and "the demand has resulted in rapid development of an active and growing dual-purpose cask industry."**

   By example, Ionics present dedicated facility was inaugurated in 1998, and today has one of the largest – if not the largest – spent fuel technology contract backlog of any U.S. manufacturer. In calendar year 2001, Ionics plans to deliver 40 UMS TSC systems and 26 UMS VCC concrete casks to NAC utility customers.

3. **Ionics agrees as noted in Appendix A (A-1) that the manufacturing capabilities of domestic fabricators "would be sufficient to satisfy current cask needs" anticipated in the Plan for Transport Cask Fabrication and Deployment of Waste Acceptance Capabilities.**

   For example, Ionics is currently operating below its maximum capacity, which we project at 48 canisters and 36 transport casks annually. At peak, we could operate three shifts with 375 total employees.

4. **Ionics endorses, as noted by DOE on page 1 of the Executive Summary, a strategy "structured to make maximum use of private industry capabilities as mandated by the Nuclear Waste Policy Act, as amended..." and "that private industry can ensure the timely provision of the necessary services and equipment required to fulfill the Office of Civilian Radioactive Waste Management waste acceptance mission objectives at competitive fixed prices and fixed rates."**

In short, Ionics is fully capable of mobilizing to meet any emerging demand for the Department to meet its obligation to utility contract-holders for timely waste acceptance and transportation from utility sites. Ionics has moved forward in earnest to meet this anticipated demand with the establishment of the first dedicated cask and canister fabrication facility of its kind in the U.S. with total turnkey, in-house capabilities. We strongly endorse maximum use of the private industry's experience and capabilities in the spent fuel management arena.

Again, we appreciate the opportunity to comment on the consultative draft and look forward to working with the Department to help meet its obligations in this important area.

Sincerely,

IONICS, INCORPORATED

Joseph M. Loftis
Vice President

Copies to: The Honorable Arlen Specter
United States Senate

The Honorable Rick Santorum
United States Senate

The Honorable Frank Mascara
United States House of Representatives

The Honorable Ivan Itkin
Director, OCRWM

Mr. Lake Barrett

STATE OF MAINE
EXECUTIVE DEPARTMENT
STATE PLANNING OFFICE
38 STATE HOUSE STATION
AUGUSTA, MAINE
04333-0038

ANGUS S. KING, JR.
GOVERNOR

PAULA M. CRAIGHEAD
STATE NUCLEAR SAFETY ADVISOR

December 15, 2000

James H. Carlson, Acting Director
Office of Acceptance, Transportation and Integration
Office of Civilian Radioactive Waste Management
Department of Energy
Washington, DC 20585

Re: Draft Plan for Transportation Cask Fabrication and the Deployment of Waste Acceptance Capabilities

Dear Mr. Carlson:

I am writing on behalf of the State of Maine (the "State") to join with the State of Connecticut in offering the attached comments on the Department of Energy's draft "Plan for Transportation Cask Fabrication and the Deployment of Waste Acceptance Capabilities" (the "Plan") to be submitted to the House Committee on Appropriations by December 31, 2000.

The State has a vital interest in the Plan and DOE's actions to implement because Maine Yankee (MY) is currently being decommissioned. The State has urged MY to transport its spent nuclear fuel and high-level radioactive waste ("SNF") to a more suitable location than coastal Maine as soon as DOE will accept it. Because DOE does not currently plan to begin accepting SNF until at least 2010, however, Maine Yankee is beginning to place its SNF in dual-purpose storage/transport canisters designed and built by NAC International. The State urges DOE to give all stakeholders greater certainty that fuel at shut down plants will be moved expeditiously by affirming that it will accept and transport Maine Yankee's SNF that has been placed in duly licensed NAC canisters and by initiating a test of the Plan in the real world of a decommissioned plant.

Sincerely,

Paula M. Craighead

Paula M. Craighead
State Nuclear Safety Advisor

Encl.
cc: Michael Meisner, Maine Yankee
Rep. Allen
Rep. Baldacci
Sen. Snowe
Sen. Collins

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State of Maine and State of Connecticut
Comments on DOE's Draft
"Plan for Transport Cask Fabrication and
Deployment of Waste Acceptance Capabilities"

The States of Maine and Connecticut (the "States") commend DOE's recognition that "vendors are developing new generation dual-purpose storage and transportation systems that have the capabilities the Department requires for its waste acceptance and transportation needs." DOE also acknowledges that NAC international systems that Maine Yankee and Connecticut Yankee propose to use are among those dual-purpose casks with the necessary capabilities. DOE can -- and should -- do more, however, so that states and utilities can address near-term SNF requirements.

First, the States urge DOE to take an active role in the Nuclear Regulatory Commission's licensing process for dual-purpose canisters. The NRC is currently considering NAC's application for a Part 71 transport license for the NAC-UMS system (Docket 71-9270), and the Commission seeks to assure, to the extent practicable, "compatibility with removal of the stored spent fuel from a reactor site, transportation, and ultimate disposition by the Department of Energy." 10 CFR § 72.236(m). DOE's timely comments on the NAC application will permit the NRC to consider DOE's requirements in deciding whether any modifications are desirable to accommodate DOE before licensing this dual-purpose system for transport. The States ask DOE to include in its Plan a commitment to participate directly in NRC cask licensing proceedings to help guide the private sector development of storage/transport systems that will meet DOE's needs.

Second, DOE's Plan should assure states and utilities that DOE will accept spent fuel "as is" if it has been stored in NRC-licensed dual-purpose canisters. The States recognize that technological developments could dictate some changes in canister design over the next decades. Nevertheless, because of the delay in beginning SNF removal, decommissioned plants like Maine Yankee and Connecticut Yankee must move all of their SNF into dry storage now. That requires an immediate decision on which system to use. In order for utilities and states to plan these decisions prudently, DOE should state in the Plan that, unless health and safety considerations clearly dictate otherwise, it will accept SNF for transport if (1) DOE had an opportunity to inspect the SNF before it was sealed in the canisters, (2) the SNF has been continuously stored in NRC-licensed, dual-purpose interim storage/transport canisters, and (3) the SNF has experienced no events during interim storage or transport that are outside the bounding site environmental and natural phenomena for which the dual-purpose system was analyzed and licensed. Such a statement will give stakeholders an additional degree of certainty that will permit reasonable planning.

Third, DOE's Plan should include a pilot program to demonstrate its capability to transport SNF using systems developed entirely by the private sector. Several shutdown plants in New England (Maine Yankee, Connecticut Yankee, and Yankee Atomic) will be completely decommissioned -- including their spent fuel pools -- by 2004, and all of their SNF will have been moved to dual-purpose storage/transport canisters. DOE's Plan should include the advance

purchase of one or more transport canisters, transport vehicles, and necessary loading equipment that can be used in the event that any SNF in those states must be moved before DOE is ready to begin accepting all of their SNF. These components will all be necessary eventually, and their early acquisition could give DOE concrete experience in purchasing and testing essential transport equipment. Such a pilot program would also tangibly demonstrate DOE's commitment to build the infrastructure that will be necessary to remove SNF from commercial reactor sites, as DOE has promised. Finally, this modest program could be used to confirm the efficacy of DOE's Plan.

The States applaud the steps that DOE has taken in developing its Plan. We urge you to include these additional steps that will benefit DOE and stakeholders by providing greater certainty. The States stand ready to cooperate with DOE to transport spent nuclear fuel to more appropriate sites as quickly and as expeditiously as possible.

Maine Yankee
321 OLD FERRY ROAD – WISCASSET, ME 04578

December 15, 2000
GAZ-00-054

James H. Carlson, Acting Director
Office of Acceptance, Transportation
And Integration
Office of Civilian Radioactive Waste Management
U.S. Department of Energy
1000 Independence Avenue, SW
Washington, DC 20585

Reference: (a) Maine Yankee Atomic Power Company (MYAPC), DOE Contract No. DE-CR01-83NE44394; June 27, 1983
(b) Letter from MYAPC (G. A. Zinke) to DOE; GAZ-00-051, November 30, 2000
(c) Letter from DOE to MYAPC (M. E. Thomas); Request for Comments on DOE Plan for Transportation Cask Fabrication and the Deployment of Waste Acceptance Capabilities; December 4, 2000
(d) Letter from DOE to State of Maine (P. M. Craighead); Maine Yankee Greater-Than-Class-C Radioactive Waste Request for Inspection by State of Maine; November 17, 2000

Subject: Comments on DOE Draft Plan

Dear Mr. Carlson:

Maine Yankee Atomic Power Company (MYAPC) appreciates the opportunity to comment on the December 2000 draft Report to the House Committee on Appropriations, Plan for Transportation Cask Fabrication and the Deployment of Waste Acceptance Capabilities." MYAPC is a contract holder [Reference (a)] and the owner of a permanently shutdown commercial reactor in Maine.

MYAPC shares the House Committee's concerns with the Department's waste acceptance and transportation program and schedule. We also fully support the Committee's direction that the Department needs to demonstrate its ability to remove spent fuel and high-level waste from utility sites for federal management and provide for the timely fabrication and deployment of waste acceptance capabilities. Accordingly, MYAPC has attached comments on the subject draft plan in response to your request [Reference (c)]. Additionally, Maine Yankee endorses the comments submitted by Yankee Atomic Electric Company, Connecticut Yankee Atomic Power Company, and the Nuclear Energy Institute.

Sincerely,

George A. Zinke
Director, Nuclear Safety and Regulatory Affairs

Attachment

ATTACHMENT

MAINE YANKEE ATOMIC POWER COMPANY (MYAPC) COMMENTS ON U.S. DEPARTMENT OF ENERGY DRAFT REPORT TO THE HOUSE COMMITTEE ON APPROPRIATIONS "PLAN FOR TRANSPORTATION CASK FABRICATION AND THE DEPLOYMENT OF WASTE ACCEPTANCE CAPABILITIES" DECEMBER 2000

GENERAL COMMENTS:

As noted in the "Introduction", the House Committee on Appropriations directed the Department of Energy (DOE) to submit a plan to be developed "after consultation with affected contract holders . . ." We respectfully submit that a 10-day comment period on a draft report does not constitute prior "consultation". Timely deployment of waste acceptance by the DOE is a subject of high importance to MYAPC and the State of Maine. We believe DOE's lack of performance in this area could be vastly improved by more open communication with and responsiveness to its contract holders.

Currently, MYAPC is engaged in the decommissioning of its plant in Wiscasset, Maine. As a direct result of the DOE's failure to begin removal of spent nuclear fuel (SNF) and high level radioactive waste (HLW) in 1998, MYAPC is constructing an Independent Spent Fuel Storage Installation (ISFSI). When loading is completed in the fall of 2002, the ISFSI will contain 64 canisters of SNF/HLW awaiting DOE acceptance and transportation activities (construction is near completion with loading of SNF scheduled to commence in Spring, 2001). To expedite the removal of the SNF/HLW to a federal site and provide for the timely and cost-effective decommissioning of its plant, MYAPC has purchased NRC-licensed dual purpose storage and transport canister systems. There is no legal or practical reason why DOE cannot and should not begin the "fabrication and deployment" of the transportation system necessary to begin removing the SNF/HLW from the MYAPC plant immediately.

The draft report presents a "strategy" for the fabrication and deployment of waste acceptance capabilities, not a detailed plan regarding how these activities will be accomplished. It appears the report is merely a plan to develop a plan. It does not contain definitive tasks, responsibilities, schedules or cost estimates. We believe MYAPC, other contract holders, and the House Committee on Appropriations would be better served if DOE committed in its report to actually consult with its contract holders and develop a useful and practical plan on a timely schedule. The current report lacks sufficient detail (or references) to discern whether or not the DOE strategy can be successful.

COMMENTS ON 3.1 STRATEGY FORMULATION:

- MYAPC agrees that the private sector has made advances in efficient spent nuclear fuel transportation and storage technology and capabilities. The report fails to acknowledge that the domestic marketability of the advances and the needs of utilities for the advances is directly related to the DOE's non-performance (i.e. because DOE has failed to provide for disposal in a timely manner, the need for temporary storage has been created. Because DOE has failed to establish standards for transportation/disposal, the marketability of a lower-risk dual purpose cask option has also been created). The DOE strategy may be flawed in its reliance on continued private sector performance, which is economically based on continued DOE non-performance.

  The report's assertion that "utilizing a market based approach to establish this infrastructure will provide the most efficient and cost effective approach" needs to reference the cost comparison studies leading to the conclusion. This is important due to the interrelationships between the private sector market and DOE's performance.

- The strategy scope is incomplete; it needs to include the DOE's plans for acceptance and transportation of Greater than Class C (GTCC) waste. In Reference (d), DOE stated that "acceptance of GTCC for disposal would be contingent upon a Departmental program in place to address necessary conditions of acceptance, including but not limited to, waste acceptance criteria for GTCC waste, additional regulatory guidance on disposal criteria and technologies for GTCC waste, and financial arrangements ensuring all reasonable costs of disposal are borne by the generators of the waste. Such a program is not presently in place." The report to the House Committee should include DOE's plan to meet its obligations.

- Maine Yankee agrees with the Department's recognition that acquiring and establishing a transportation system infrastructure requires long lead times. Although the report outlines a proposed strategy for using private industry experience and capabilities, it does not outline the strategy and tasks for developing the policies and protocols for which DOE retains responsibility. The report does not provide a basis for delaying development of the necessary infrastructure, which would need to be in place before Phase A.

- The key element stating the "Department proposes to accept utility-acquired storage/transportation systems . . ." should instead state the "Department will accept utility-acquired NRC-licensed storage/transportation and will compensate for avoided costs associated with the use of utility supplied equipment."

COMMENTS ON 3.2 SCOPE AND DESCRIPTION OF THE ACQUISITION PLAN:

- DOE should incorporate into its plan the Standard Contract shutdown reactor priority provision. DOE should also plan for a consolidated shipping campaign strategy to accelerate the removal of all the SNF/HLW from shutdown reactor sites.

- The scope of the report must include DOE's plan for acceptance of HLW, including GTCC waste, in order to fully respond to the House Committee's direction. Timely removal of spent fuel and high level waste are both critical to completion of the decommissioning of commercial nuclear power plants. For Maine Yankee, the opportunity for timely removal has passed; the report should outline its plan to remove both as soon as possible.

- Table 1 on page 12 of the report indicates that the Department will rely mostly on rail casks to transport spent fuel to the Federal repository. Some rail spurs and lines are in need of repairs and/or are being abandoned/removed. For plants being decommissioned, onsite transportation capabilities may also be decommissioned (e.g. removed). It is important that DOE not delay in its development and implementation of a plan for removal of SNF/HLW. DOE should include provisions for payments from the Waste Fund to cover the repair, restoration, or construction of necessary transportation modes needed to facilitate the removal of SNF/HLW.

- This section of the report should outline the DOE tasks to be completed (e.g. development of policies, protocols, regulations, acceptance and transportation standards, inspections)

COMMENTS ON 3.3 POTENTIAL IMPLEMENTATION SCHEDULE:

- The Department's plan is explicitly linked to the availability of a permanent repository. However, the United States Court of Appeals for the District of Columbia Circuit has twice held that the Department's obligation to remove spent fuel is "unconditional," and cannot be excused by the absence of a repository. Given the urgent need for spent fuel and HLW (including GTCC waste) removal, particularly from shutdown plants like

Maine Yankee, and the uncertainty surrounding the timing of a repository, the Department should not link the timing and schedule of its waste acceptance and transportation activities to the availability of a repository. DOE's acceptance program must begin immediately.

- This section should include a more detailed schedule, particularly for the tasks, which need to be completed by DOE (e.g. development of policies, protocols, regulations, acceptance and transportation standards, and inspection standards).

COMMENTS ON APPENDIX A:

- As a minimum, Table A-3 should contain a disclaimer since the information is already dated. For example, Maine Yankee has 64 NAC-UMS canisters in production for the storage of its SNF/HLW. They will be fully loaded awaiting DOE acceptance/transportation in 2002.

OTHER COMMENTS:

- The report should contain definitive tasks, responsibilities, schedules, cost estimates, and DOE resource needs.

- MYAPC does not believe that the report as written lays out either a complete strategy or a plan for a successful and timely removal of commercial nuclear plant SNF/HLW. As noted in Reference (b), Maine Yankee would like to work with DOE through a pilot program to assist in furthering the DOE program for acceptance and transportation of spent fuel and high level waste (i.e. GTCC waste). We believe a pilot program would enable the DOE to advance its acceptance and transportation schedule, develop needed guidance and acceptance criteria, and potentially avoid further increasing industry costs associated with the construction and operation of interim SNF/HLW storage facilities.

NAC INTERNATIONAL

December 15, 2000

By Fax, E-Mail & Overnight Mail

Mr. James H. Carlson
Acting Director, Acceptance, Transportation & Integration
Office of Civilian Radioactive Waste Management
U.S. Department of Energy
1000 Independence Avenue, SW
Washington, D.C. 20585

Dear Mr. Carlson:

NAC International (NAC) is pleased to provide comments on the U.S. Department of Energy's (DOE) draft consultative "Plan for Transport Cask Fabrication and Deployment of Waste Acceptance Capabilities" in response to direction to the Department from the U.S. House of Representatives Committee on Appropriations.

As you no doubt know, NAC is the U.S.'s largest nuclear spent fuel transportation and spent fuel management technology company with operations worldwide. In the next several years alone, NAC will deliver over 200 multi-purpose canisters systems to half a dozen or more U.S. utilities. Our flagship systems include the new generation Universal Multi-Purpose Canister System (UMS), the U.S.'s first licensed dual-purpose transportable storage system (NAC-STC) and the NAC-LWT cask system, which is the workhorse for our transportation cask fleet. NAC is also the principal U.S. contractor for the important U.S. Department of Energy-sponsored foreign research reactor fuel return program, as well as other key U.S. non-proliferation initiatives in North Korea and Kazakhstan. NAC's transportation experience includes more than 3,500 shipments over more than 6 million miles.

In general, NAC's comments on the consultative draft are as follows:

Focus on Timely Fabrication of Transportation Casks and Deployment of Waste Acceptance Capabilities

The Committee on Appropriations-directed focus on the issue of timely fabrication and deployment of waste acceptance capabilities is most welcome. It is clear that the Department faces a formidable challenge in meeting its obligations for timely acceptance of spent nuclear fuel from its U.S. utility contract-holders. To this end, NAC suggests that the Department systematize an annual review of these requirements with key utility and spent fuel management industry stakeholders on an annual basis. In addition, the Department is long overdue in updating the Facilities Interface Capability Assessment and the Near Site Transportation Infrastructure assessments, which were completed in the early 1990s by NAC under contract to the Department. A new initiative to update these assessments is imperative.

Maximum Reliance on the Private Sector

NAC commends the Department on its commitment to center its plan on maximum utilization of the private sector's capabilities "based on successful transportation experience gained in its current radioactive materials shipping campaigns, as well as recent private sector advance" in spent nuclear fuel transportation technology. This premise, which is mandated in the Nuclear Waste Policy Act, as amended, is practicable and makes economic sense. Additionally, there is ample indigenous capability in the private-sector of the nuclear energy industry to achieve the objectives of the program. Perhaps the best testament to this is the successful work done by NAC to license two new generation canister-based systems (the new NAC UMS and MPC technologies) in the wake of the termination of the Government's proposed multi-purpose canister program in 1995. This significant, successful expansion of spent fuel management dry storage options was achieved at a fraction of the cost projected for the Government-sponsored program – and at no cost to utility waste fund ratepayers. The same is true of the private-sector developed NAC-LWT, which is the U.S.'s leading truck transport system in use today. To this end, NAC recently completed fabrication of three new LWT systems.

Proposed "Servicing Regions" for Regional Servicing Contractors (RSCS)

NAC remains skeptical with regard to the feasibility, practicality and efficiency of the Department's plans to divide the contiguous forty-eight states into four regions analogous to the U.S. Nuclear Regulatory Commission regions. NAC strongly encourages the Department to revisit this contracting paradigm, which we believe is inconsistent with the Department's stated desire to encourage maximum competition and private sector efficiency.

For example, the Regional Serving Contractor (RSC) is asked to take on the role of stepping between the actual customer (the utility) and the prime contractor (the DOE) as the DOE's agent. The contract administration role assigned to the RSC will add a layer of bureaucracy that does not add value to the customers.

Under an alternative approach, the spent fuel management suppliers could be subcontractors to the DOE, supporting work in all regions (i.e., there should be no regions). Or if the Department truly wants to "build on the successful transportation experience gain in its current radioactive materials shipping campaign," it should model this program on the highly successful DOE–sponsored foreign research reactor fuel return program. Essentially, this program is based on pre-qualification of prime contractors and is task order driven. NAC, which has been a principal prime contractor for the program, has found this program to be innovative, flexible and efficient.

Cask Fabrication Capacity and Capability

NAC agrees with the overall conclusion that there is sufficient qualified fabrication capability and capacity in the U.S. and internationally to meet the Department's projected transport fleet deployments of approximately 100 casks, if it is under appropriate, qualified private sector management. A testament to this conclusion is the fact that NAC is delivering over 100 UMS canister systems over the next 18 months. This result is the end product of NAC efforts to develop a comprehensive NAC-approved and quality-qualified fabrication delivery consortium with a minimum capacity of 100 systems annually. Table A-4 (Cask Fabricators) does not adequately address the reality of this delivery system and belies the consultative draft's claim that the Department "continuously evaluates various cask-manufacturing activities underway throughout the industry, in both the domestic and international market..."

In fact, Table A-4 (Cask Fabricators) overlooks some of the most qualified manufacturing and fabrication concerns in the nuclear spent fuel management market today. They include (alphabetically) Hitachi Zosen Corporation, Hi-Tech Manufacturing, Ionics Incorporated, Nooter Fabricators, Ranor and Westinghouse Engineered Products, which individually and collectively have significant capacity and capability to contribute to any cask fabrication effort under competent management. We commend them to your attention and encourage their inclusion in the final report to the Congress.

In summary, NAC supports the Department's renewed focus on spent fuel acceptance capability readiness, which is of great importance to our customers and to NAC. We endorse the Department's reliance on the private sector in the consultative draft, although we have serious reservations regarding the workability of a regional based system. Finally, we encourage the Department to expand its fabrication capability assessment to include the array of well-qualified fabricators, which are identified above.

Sincerely,

ORIGINAL SIGNED

Edward M. Davis
President & Chief Executive Officer

Copies To:

Hon. Ivan Itkin
OCRWM Deputy Director Lake Barrett
NAC Nuclear Technology Users Group

BOconnell@naruc.org on 12/08/2000 04:40:54 PM

To: Corinne Macaluso/HQ/RWDOE@CRWMS
cc: Martha Madden/HQ/RWDOE@CRWMS

Subject: Waste Acceptance Report

<<WAST Report comments.doc>>
Mr. Barrett gave us a copy of the consultation draft and invited our review. Our comments are attached. We are only sending comments by e-mail unless you want hard copy.

We have urged DOE to engage the stakeholders on transportation planning, with whatever disclaimers are needed, as early as possible. We recognize the DOE strategy is to get a site selection before getting into mode and route matters. The DEIS is clear on that. I think your report my be a little more explicit in what seems to be a preference for rail. There are lots of nervous folks out in the hinterlands who have been exposed to a lot of fear-mongering about highway risks of spent fuel shipments that may never materialize.

Thank you,

Brian O'Connell

Brian O'Connell, PE
Director, NARUC Nuclear Waste Program Office
National Association of Regulatory Utility Commissioners
1101 Vermont Ave. NW, Suite 200
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Phone: 202-898-2215 Fax: 202-898-2213
boconnell@naruc.org

December 8, 2000

Mr. James H. Carlson
Acting Director
Office of Acceptance, Transportation
and Integration
Office of Civilian Radioactive Waste Management
U.S. Department of Energy
1000 Independence Ave., SW
Washington, DC 20585

RE: Plan for Transportation , Cask Fabrication and the Deployment of Waste Acceptance Capabilities

Dear Mr. Carlson:

Thank you for the opportunity to comment on the draft Plan for Transportation, Cask Fabrication and the Deployment of Waste Acceptance Capabilities to be submitted to Congress. We have several areas of concern that we believe Congress would be interested in as well.

Our comments are attached.

Sincerely,

Brian O'Connell
Director
Nuclear Waste Program Office

Attachment

Comments on the Consultation Draft
Plan for Transportation, Cask Fabrication and the Deployment of Waste Acceptance Capabilities

From
The National Association of Regulatory Utility Commissioners

1. Mode Selection

a) It is unclear in the draft when the selection of mode of transport will be determined. The Draft Environmental Impact Statement (DEIS) for the geologic repository does not specify a preference for rail or highway transport and states, "it is uncertain at this time when DOE would make any transportation-related decisions," so it analyzes a number of truck and rail scenarios. The Projected Annual Federal Repository Transport Fleet Deployments, Table 1, in the Fabrication Industry Analysis, seems to portray the "mostly rail" scenario. Yet, it is not apparent at what stage the critical determination of mode choice is made or upon what basis it is chosen. Is this to be done during Phase A by each RSC or will DOE have made this determination before the final RFP is issued? We suggest explicit clarification.

b) We recommend that the status of the mode designation be added to both the Executive Summary and in the appropriate section of the text.

2. Acceptance Rate

a) Footnote 15 presents a projected acceptance rate that is assumed for the shipment planning. Since the past Congress, in H.R. 45 and S. 1287, considered starting the SNF shipments sooner in interim storage of "early acceptance" scenarios and would have called for a more rapid buildup in shipment rates than the schedule shown, it would seem important to point out in the report that the proposed acceptance rate is less demanding than the schedules Congress had previously considered. It would probably require a different funding profile and could perhaps over-tax the cask manufacturing capability that you conclude in your scenario is adequate but may not be in those accelerated schedules.

b) The acceptance rate in footnote 15 reaches the 3000 MTHM level in five years, for a total of 22,200 MTHM over the first ten years, compared to the March 1995 APR which levels off at 900 MTHM in the 3rd year for a total of 8,200 MTHM over the ten year period. Has the acceptance rate been revised?

3. Manufacturing Capacity

a) We are not in a position to evaluate the manufacturing capacity of the spent fuel package industry or specialized transportation equipment industry. At a recent industry forum, a utility executive did make a comment about the current cask suppliers being "over-committed" and none of the several manufacturer representatives challenged the statement. It is apparent that ISFSI requirements are growing as more utilities take prudent steps to expand site storage capacity as many are not optimistic that SNF will begin movement to a licensed repository in 2010. Your assessment that six years from inception to actual shipments activities does seem adequate for an industry response.

4. Funding Profile

a) The executive summary makes the point in the final paragraph that "funding constraints" have caused you to have to prioritize OCRWM program activities to concentrate on site characterization. Since the tone of the report requirement was to suggest that DOE has shown an "erosion of support" for waste acceptance and transportation, we think you would be missing an important opportunity to make the point that the funding requirements for waste acceptance and transportation, like the program itself, need to have an order of magnitude increase in the next several budgets in a post-site suitability phase of the program in order to reach the 2010 repository opening date. We recommend including the funding projections for these functions through 2010 in this report. This should help place the spotlight on the need for Congress to provide the budget to match their desired objective of timely removal of spent fuel.

Nebraska Public Power District

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December 14, 2000

Mr. James H. Carlson
Acting Director Office of Acceptance, Transportation and Integration
Office of Civilian radioactive Waste Management
Department of Energy
Washington, DC 20585

Dear Mr. Carlson:

NPPD appreciates the opportunity to comment on the "*Report to the House Committee on Appropriations, Plan for Transportation Cask Fabrication and the Deployment of Waste Acceptance Capabilities*" (Consultation Draft).

Our comments are:

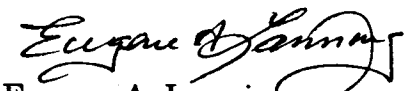
Pg.	Section	Comment
1	2nd para.	"It [the plan] provides sufficient time ..." The statement is deficient in that there is apparently no time provision for legal challenges to the transportation of spent fuel, there is apparently no provision for resolving the inevitable contractor disputes, there are apparently no provisions for future OCRWM budget limitations that would slow the process, nor is the time needed to address activist concerns apparently present. Until time allowances for the above items are shown to exist in the "plan" we disagree as to the accuracy of the cited wording. If other industry internal impediments to timely transport and fuel acceptance, such as cask design changes, are identified in the proposed Phase A planning phase, no time is provided in the DOE strategy to resolve these issues. Given the lead times involved in resolving necessary changes, DOE should begin the waste acceptance and transportation planning processes immediately to insure that the schedule outlined in the Consultation Draft can be met.
1	2nd para.	" ... to assure performance of the Department's waste acceptance mission." should read "... to assure performance of the Department's waste acceptance mandate." The change in the wording is to better represent that success is expected.

Pg.	Section	Comment
3	2, 2nd para.	This section gives the reader the impression that the risk involved with the transportation of radioactive materials is independent of the mode of transportation or the packaging of the material. It is recognized that the risk is very small, but the inference is not correct. As shown in Section 4 (pg. 12) the fleet sizes for each mode of transportation are not equal.
1, 5		The document does not differentiate between a strategy and a plan. Indeed, in the *Executive Summary* the Draft Request for Proposal (RFP), "Accession of a Waste Acceptance and Transportation Services for the Office of Civilian Radioactive Waste Management" is cited as the **plan** that is requested. Yet on page 5 the above document is called a **strategy**, not a plan. The document is best characterized as a strategy, not a plan. A strategy is a presentation of how a problem could be solved, whereas a plan is a series of definitive steps that reflect how a problem is to be solved. The Consultation Draft should better demonstrate DOE's ability to remove used nuclear fuel from utility sites and demonstrate a commitment to the timely removal of used nuclear fuel.
5	3.1	DOE's strategy/"plan" appears to rely on private industry, through the RSC, to put in place detailed plans for fabrication and deployment of waste acceptance capabilities. There is absent from the Consultation Draft any mention of the attendant problems. Industry reaction is that the RSC RFP does not provide adequate incentives for the contractor and would not enable the private sector to succeed. A discussion of the anticipated problems generated by the RSC approach is warranted.
10	3.2, last para.	The first sentence, "Phase C ..., nominally 6 years after contract initiation" could perhaps be better written as "Phase C ..., nominally 5 years after contract initiation for Phase B." Either the difference should be changed or explained.
10	3.3	This section states, in essence, that any further action is being deferred to 2002. While it may be argued that the uncertainty of the project will be reduced when a site is selected, delay in action is not similarly acceptable. When a site is not selected work can progress. In those situations decisions made on principles rather than being made on perceptions about a particular site. A transportation plan should be designed to be largely independent of the location of the repository site or the detailed route to access the site. Also, as noted above there are several factors that are not taken into account, so starting work immediately is requested. As mentioned in the Executive Summary, the budget limitations for the repository construction have occurred. Similar budget constraints in the transportation area could result in a repository with no method to transport the fuel, a clearly undesirable outcome.

Pg.	Section	Comment
10	3.3	The Consultation Draft states "The Department's plan for implementation ... will await a decision on a siting repository." It should not be so dependent. The DOE obligation to begin waste acceptance and transportation is unconditional and independent of such a decision whatever what the outcome might be. As outlined above, the transportation equipment design and procurement lead times indicate that the process should begin now. DOE should begin planning and acquisition of waste acceptance and transportation capabilities as soon as possible to demonstrate its commitment to the timely removal of used nuclear fuel from reactor sites. Receipt of spent fuel before the start of repository operations should be addressed by DOE as a means to accomplish the timely removal of used nuclear fuel from reactor sites. The Office of Transportation should be striving to be ready to move fuel well ahead of the site selection.
12	Foot-note 15	Delete the assertion that the waste acceptance rates are targets, as the prior usage is to list the rates as minimum acceptance rates.
-	General	Apparently absent from the Consultation Draft is the formation of a working relationship with the utilities, the holders of the Contracts for the disposal of the fuel. Resolution of outstanding utility concerns in the areaa of the initial storage form of the fuel (wet storage vs. prepackaged dry storage), credits for operations / costs expended by utilities for canisters already loaded, competition for manufacturing resources, the potential for repackaging the fuel, and other concerns need to be an integral part of DOE's plan. Add to the plan meetings that will result in a cost-effective plan that recognizes the position of the utilities.

Should you have any questions, please contact me.

Sincerely,



Eugene A. Lanning
Senior Staff Engineer
Tel.: 402-825-5287

cc: Ms. Corinne Macaluso (OCRWM) @ Fax 202-586-6520
NF File 51.01

Ref: NFD C:\YEAR2000\P5101005.000

NOOTER
fabricators, inc.

December 15, 2000

James H. Carlson, Acting Director
Office of Acceptance, Transportation and Integration
Office of Civilian Radioactive Waste Management
Department of Energy
1000 Independence Avenue, SW
Washington, DC 20585

Subject: Comments on the Report to the House Committee on Appropriations, "Plan for Transportation Cask Fabrication and the Deployment of Waste Acceptance Capabilities - December 2000"

Dear Mr. Carlson:

We were recently made aware of your need for public comment in order to submit the above Report to the House Committee on Appropriations by December 31, 2000. Pursuant to that need, Nooter Fabricators, Inc. of St. Louis, Missouri respectfully submits the comments contained in the Attachment 1 to this letter, and believes their inclusion in the final edition will favorably augment the already well-structured Consultation Draft.

As a company with considerable experience and investment in the U.S. nuclear energy industry, Nooter appreciates this focus on the important mission of timely acceptance of commercial nuclear spent fuel by the U.S. Department of Energy. We look forward to working with the Department cooperatively in furtherance of this important national objective.

In light of this commitment and interest, we enclose two attachments:

1) Nooter Fabricator's Comments and Proposed Amendments to the Report,

2) Other Projects Recently Completed by Nooter Fabricators, Inc.

1400 South Third Street • Saint Louis, Missouri 63104 U.S.A.
Mailing Address: P.O. Box 451 Saint Louis, Missouri 63166 U.S.A.
Telephone: (314) 621-6000 Fax: (314) 421-7580 • E-mail: sales@nooter.com

Nooter Fabricators, Inc. (NFI) is a wholly owned subsidiary of the employee-owned Nooter Corporation with headquarters in St. Louis, Missouri. Nooter Corporation, which is a Missouri incorporated U.S. company, owns several different businesses that produce custom engineered equipment and services for process industries. Total sales this year will exceed $500 million.

NFI has fabricated over 10,000 pressure vessels, reactors, casks, containers and other specialty equipment items since the company was established in 1896. These custom designed and fabricated products are installed around the world. Products have included nuclear reactors, nuclear steam generators, nuclear waste process vessels, nuclear waste canisters and other complex equipment of high quality. Considerable equipment items have been supplied to various DOE labs. Materials of construction have included every metal that can be welded, including all the reactive metals and all the precious metals of titanium, tantalum, zirconium, gold, silver and platinum. Vessels have varied from 2 feet in diameter up to 28 feet in diameter with weights exceeding 700 tons. Equipment lengths have varied from 10 feet to over 300 feet.

NFI currently has about 300 employees in its 700,000 square foot facility located on the Mississippi River in downtown St. Louis, Missouri. The plant is classified as a full-service facility offering fabrication, machining, heat-treating, all inspection procedures and engineering to carry out all work in-house. Other equipment manufacturers are typically limited in engineering, manufacturing expertise or equipment and must procure numerous services from outside vendors.

The company possesses all the quality assurance certificates required for manufacturing spent nuclear fuel waste canisters and casks. These certificates are issued by the American Society of Mechanical Engineers (ASME) as the nuclear certificates "N", "NA", "NPT", and the pressure vessel certificates for Division 1, 2 and 3 class vessels. The nuclear quality programs at NFI comply with U.S. Government Code of Federal Regulations Parts 50 Appendix B, 71 Subpart H, and 72 Subpart G.

NFI currently has a contract from a government prime contractor to build three RH-72B shipping casks for the Department of Energy to transport transuranic waste to the Waste

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Isolation Pilot Plant at Carlsbad, New Mexico. The contract is USDOE Contract No. DE-AC04-2000AL66342. The 42-inch diameter by 12-foot long stainless steel casks have a poured lead liner for gamma radiation shielding, and are very similar to the transport casks referenced in the subject Report. In addition, NFI earned the highest Technical Proposal Grade out of nine competing proposals submitted to DOE-Hanford Site at Richland, WA under Solicitation No.15682, Request for Proposals (RFP), on April 26, 1999. That proposal covered the construction of 400 Multi-Canister Overpacks (MCO) in accordance with the Department specifications, government codes and the above referenced stringent ASME nuclear code.

In closing, we trust the Report comments offered in Attachment 1 are clear and helpful. Thomas Reitenbach, our Nuclear Contracting Engineer, or I certainly would be pleased to elaborate or clarify them at your convenience.

Yours truly,

Michael W Bytnar

Michael W. Bytnar
President
Nooter Fabricators, Inc.
Tel. 314-421-7740
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Attachments

/gvj

copy: Mr. Ivan Itkin – DOE
Mr. Lake Barrett - DOE
Senator Christopher S. Bond
Minority Leader Richard Gephardt
Senator-Elect Jeanne Carnahan

Attachment 1- Nooter Fabricator's Comments and Proposed Amendments to Report,

"Plan for Transportation Cask Fabrication and the Deployment of Waste Acceptance Capabilities - December 2000"

1. Update & Expansion of the list of Cask Fabricators

Amend Table A-4, Appendix A - Cask Fabricators to include Nooter Fabricators,

Name **Address** **Phone** **WebSite**	**Casks Recently Built (Partial List)**	**Facility Size** **Employees** **Other Notes**	**Remarks**
Nooter Fabricators,Inc. 1400 S Third St. St. Louis, MO 63104 314-421-7733 www.nooter.com	-3 Transuranic Waste Casks, -Yucca Mt. Mock-Up Package, -DOE Waste Overpack	- 700,000 sq ft - 300 employees - Nuclear QA - Capable of 20 casks/yr, assume 6 month lead	- Full Service Facility, - Production capacity can be expanded to 40/yr - 104 yrs old

2. Clarification of the Cask Industry

The "private sector cask industry" referred to in the first sentence of the 3rd paragraph, page 5, under Section 3.1- Strategy Formation may be misleading. The term "private sector cask industry" is more a colloquialism than a formal definition. Manufacturers building equipment for the transport and storage of nuclear waste are part of SIC (US Department of Commerce Standard Industrial Classification) Code 3443 - Fabricated Metal Products, Non Mixing. There are no sub-codes for nuclear containers or casks. There are several hundred manufacturers registered under this SIC Code, but only a few actively manufacture equipment for the storage and transport of spent nuclear fuel and waste. This paragraph should be clarified to provide the reader with a better understanding of the industry.

3. Additions to Available Fabrication Industry Capabilities

Consideration might be given to adding the following bullets in the second paragraph on page 11 under Section 4.- Fabrication Industry Analysis,

- Financial stability of equipment manufacturers to meet contract commitments.
- Adequate production capacity to meet peak delivery requirements of all the RSC contractors simultaneously.

- Impact of the need for final repository waste packages on the capacity to produce the required transportation casks and equipment.
- Impact of the need for private utilities to procure spent nuclear fuel casks and canisters on the capacity to produce the required transportation casks and equipment.
- Risk profile of various industry production capacity scenarios.

4. Expansion of Cask Fabrication Capabilities

The second paragraph of Appendix A suggests there are only two active cask manufacturers in the country. This is misleading and should be revised. Others have manufactured casks and still others are capable of manufacturing casks. Nooter Fabricators, Inc. of St. Louis, Missouri possesses the largest vessel and cask manufacturing plant in the USA. Its history in producing high quality nuclear vessels dates back more than 40 years to the inception of the nuclear industry. At that time, NFI manufactured primary nuclear reactors, nuclear steam generators and other ancillary equipment. NFI is currently building 3 transport casks for transuranic waste for the Department, and has built the only repository waste package mock-up built to date. It also built a Prototype of the Hanford Site MCO Multi-Canister Overpack and is fabricating 43 nuclear cask liners. This description of NFI should be included in this paragraph, and the last sentence in the paragraph should be expanded to include NFI in Table A-4.

The third paragraph in Appendix A should be amended to supplement the second paragraph above. NFI has the capacity to produce 20 casks per year with current resources. The six month lead-time nominated in the Draft is reasonable. The company will also be able to concurrently manufacture repository waste packages and spent nuclear fuel canisters as these demands will fall on the industry during the same time-frame.

5. Strategy Formulation

The last sentence under the fourth bullet of the "Key Elements of the Strategy" on page 6 under Section 3.1- Strategy Formulation should be amended to explain that the RSC will also be responsible for procuring all hardware and equipment to government specified standards. This point is made at the top of page 9 under the Scope of Phase B, but it appears to be a key strategic factor that deserves emphasis in this section.

6. Optimization of the RSC Teams

In the second paragraph on page 8, under Phase A of Section 3.2 - Scope and Description of the Acquisition Plan, it might be worth recognizing that the RSC's may form teams with certain key subcontractors in order to optimize their plans and reduce plan performance variation. Teaming should also be seen as advantageous to cost, quality and safety.

7. Equipment Title Transfer

In the second paragraph on page 9, under Phase B, Section 3.2 - Scope and Description of the Acquisition Plan, there is an address in the last sentence to title transfer of equipment supplied by the RSC. This sentence seems to introduce some ambiguities that are not necessary. It may suffice to state that the Department will take possession and title to all the equipment at the end of the contract. Alternatively, the sentence may be deleted altogether.

Consideration might be given to adding a new paragraph in this section that addresses the procurement of similar equipment by several RSC's for use in their respective regions. It should be pointed out that equipment of one RSC will not likely be identical to another as each RSC will strive to optimize his plans to meet his specific regional requirements. Presumably, each RSC will operate independently, and will not be impacted by the other RSC's when they all interface with the Department.

Attachment 2 - Other Projects Recently Completed by Nooter Fabricators, Inc.

NFI has fabricated over 400 special projects to stringent ASME quality requirements over the past five years. Other recent nuclear quality projects include:

- 30- nuclear waste canisters, DOE/ Savannah River Site
- 6- nuclear waste process vessels, DOE/ Savannah River Site
- 5- nuclear waste process vessels, DOE/ Idaho National Engineering and Environmental Lab (INEEL)
- 2- nuclear waste heat exchangers for DOE/ Savannah River Site
- 1- nuclear waste Overpack vessel, Transnuclear for DOE/ INEEL
- 1-Yucca Mt. Repository Waste Package Mock-Up, Framatome for DOE/ Yucca Mt., NV Project
- 1- Prototype MCO Multi-Canister Overpack for DOE/ Richland, WA Hanford Site
- 16- carbon steel nuclear waste cask liners for a private client
- 41- ultra-clean electronic polysilicon reactor vessels for a private client
- 36- stainless steel fintube heat exchangers for a private client

North Atlantic

North Atlantic Energy Service Corporation
P.O. Box 300
Seabrook, NH 03874
(603) 474-9521

The Northeast Utilities System

December 15, 2000
SB20001426

Ms. Corinne Macaluso
Office of Civilian Radioactive Waste Management
United States Department of Energy
1000 Independence Avenue, SW
Washington, DC 20585

Sent 12/15/00 via telecopy to (202) 586-6520

Subject: Comments on the December 2000 Draft "Plan for Transportation Cask Fabrication and the Deployment of Waste Acceptance Capabilities", Report to the House Committee on Appropriations, by the Department of Energy, Office of Civilian Radioactive Waste Management (OCRWM)

Dear Ms. Macaluso:

North Atlantic Energy Services Corporation (NAESCO) hereby responds to your request for comments on the subject Draft Plan. NAESCO is the operator and managing agent for Seabrook Station, an 1158 MWe commercial nuclear power plant located in Seabrook, New Hampshire. Seabrook Station has operated since 1990 and, like all other U.S. nuclear power plants, holds the Standard Contract with the Department of Energy (DOE) for permanent disposal of its spent nuclear fuel.

We are pleased to have the opportunity to review the DOE / OCRWM Draft "Plan for the Transportation Cask Fabrication and Deployment of Waste Acceptance Capabilities". The Draft Plan outlines steps that DOE is taking to prepare for transportation to and waste acceptance at a federal repository for the nation's commercial spent nuclear fuel and high level waste. It is also reassuring that DOE recognizes that the private sector has extensive and recent experience with spent nuclear fuel transportation, and is well positioned to support DOE's needs in fulfilling its transportation mission and function. However, the Draft Plan indicates (Page 10) that Phase A would begin in mid-year 2003, and further indicates (Page 8) that at least six years (two years for Phase A plus the first four years of Phase B) of work must be done before spent nuclear fuel would begin to be removed from reactor sites. This schedule is not consistent with the NWPA or the Standard Contract, which require commercial spent nuclear fuel to be removed from reactor sites as expeditiously as possible and in no event later than January 31, 1998. Further, even though DOE has not taken action to remove spent nuclear fuel from commercial reactor sites as required by law and by contract, and is behind by a projected twelve years at this juncture, the Plan provides little compensation or relief for the extensive delay. For example, the Draft Plan does not allow spent nuclear fuel and high level waste acceptance to be accelerated to compensate at least partially for the delay. The Draft Plan should be modified accordingly to accelerate spent nuclear fuel and high level waste transportation and acceptance rates beyond that indicated in the Draft Plan.

Further, based on DOE's current projections, DOE will be unable to *begin* removing Seabrook's spent fuel before the year 2019 (this assumes no further delays in DOE's schedule). Accordingly, we object to the frequent use of the word "timely" in the current draft. The proposed schedule does not provide "timely" service to Seabrook Station or to New England ratepayers. (We note that Seabrook ratepayers have already paid DOE approximately $80 million.) Indeed, the current schedule without further delay will expose Seabrook to significant incremental storage costs which might otherwise be avoided if DOE expedited its preparation activities rather than waiting for more progress at Yucca Mountain. Although the Department's proposed plan is consistent with a 2010 federal repository start-up, we believe that the waste acceptance and transport could and should be initiated well before 2010. This could potentially save Seabrook (and others) significant costs that ratepayers currently bear.

We offer the following specific comments:

A. <u>The Schedule</u>:

The DOE Plan does not schedule the first delivery of spent fuel to the repository until the repository is finally operational - anticipated to be in 2010. Under this schedule, DOE will not submit a request for proposal for Regional Services Contractors (RSC) until 2002, after the decision on siting the repository is made. Awarding contracts is scheduled for 2003. This initial step is called Phase A and will last approximately 2 years. The next step, Phase B, takes place after the RSCs are selected and is viewed as the acquisition and mobilization phase, culminating in the construction and deployment of the transport system in about 2006. Transportation and acceptance, referred to as Phase C, the actual performance under the contract, is not scheduled to begin until 2010. However, we believe that implementation of Phase C should begin in 2007 or earlier for the following reasons:

1. Although the Draft Plan lists only two domestic suppliers of fabrication services for transport equipment, there is significantly more domestic capacity than specified in the Plan. Along with the two fabricators named in the Draft Plan, there are a number of others with either direct or related transport cask manufacturing experience. As stated in the Draft Plan, there are a number of systems that are already licensed for transport. Recent ones include several transportable canister-based storage systems. Surge storage capacity could be constructed at the repository site using the canister-based storage systems to accommodate spent fuel prior to a 2010 repository startup.

2. The earlier startup is advantageous for DOE. Implementing transport by 2007 or sooner will give DOE at least three years to resolve any bottlenecks and ensure a smooth transition to a fully operational system. Having fuel at the federal repository site prior to startup also will give DOE time to test-run all its new equipment and processes, such as: the handling and transfer of spent fuel in preparation for repository startup; test equipment for spent fuel transfer and emplacement; operating procedures; and applying lessons learned through actual operating experience. As facilities at the repository are completed, operational testing can commence. With such an earlier startup, by 2010 or sooner, DOE can commence emplacement at higher rates than projected in the Yucca Mountain Viability Assessment.

3. Early acceptance of spent fuel will also provide relief to utilities that are running out of at-reactor spent fuel storage space. Seabrook will require additional at-reactor spent fuel storage capacity by approximately 2010. With acceptance of spent fuel by 2007 at the nominal acceptance rates proposed in the Viability Assessment, it may be possible for Seabrook to avoid the need for a dry storage system and its associated costs.

The Draft Plan states that the DOE will await a decision on siting a repository before implementing spent fuel and high level waste transportation and acceptance services. This Draft Plan therefore is inconsistent with requirements of the Standard Contract that requires transport and acceptance services to begin by January 31, 1998. The Plan should recognize that DOE has not met its legal and contractual requirements, and propose compensatory actions to preclude harm to the commercial nuclear power industry and Seabrook Station.

B. Use of Rail Casks:

Table 1 on page 12 of the Plan indicates that DOE will rely mostly on rail casks to transport spent fuel to the Federal repository. The NSTI (Near-site Transportation Infrastructure) assessment that was performed a number of years ago indicated that some trunk lines and rail spurs in close proximity to reactor sites were in need of major repairs. A near-site assessment of rail capability needs to be done to evaluate the condition of trunk lines in close proximity to plant sites. DOE should include provisions for payments from the Waste Fund to restore or repair needed trunk lines and assign responsibility for doing so to the RSC.

C. At-Reactor Facility Modifications:

The plan does not address the need for facility modifications to accommodate DOE's equipment and who will pay for making changes, if needed, to accommodate this equipment. If the RSC commits to a fixed price, is it their responsibility to include such facility changes in their price proposal? Will the utility that needs to implement changes be required to negotiate with the DOE or the RSC? What is DOE's criterion for determining when it is the utility's responsibility and when it is the Department's?

It should be made clear in the Plan if DOE decides to use dual-purpose canisters that the RSC provide these canisters and the transportation casks, as well as the ancillary equipment required to handle and load the canisters and casks.

D. Acceptance of Utility Acquired Storage/Transport Systems:

DOE indicates a willingness to accept utility acquired storage/transport systems. However, DOE places a condition on their acceptability in that they must be "suitable for use at the Federal Facility." Interpreted broadly this statement could mean any dry storage system that is also licensed for transport. A more narrow interpretation could limit acceptance, for example, to systems with more conventional access to bare spent fuel, such as casks with bolted lids. **DOE should more clearly specify what it will accept. Some utilities are still concerned that loading spent fuel into dry storage may preclude acceptance in accordance with the delivery queue if the fuel is then considered "non-standard" under the terms of the Standard Contract.** The Draft Plan also states that the various equipment and service vendors are developing the "new generation dual-purpose storage and transportation systems that have the capabilities the department requires for its waste acceptance and transportation needs." Will all of these be acceptable assuming they meet Repository siting criteria? Although it may not be possible to include such criteria in this Draft Plan, DOE needs to make such criteria available to the Contract Holders.

E. State and Local Interactions:

DOE indicates that it intends to be responsible for primary interactions with the affected states, tribes and local units of government to ensure consideration of their input on spent nuclear fuel transportation through their jurisdiction. It should be noted that the utility industry has successfully dealt with many challenges from the states and local governments regarding nuclear fuel transport and related issues, and DOE should take advantage of this experience. The contract holders generally have well established long-standing working relationships with states and local communities within their service territories that will be of significant benefit to any national spent fuel transport program.

F. Acceptance Schedule Priorities:

DOE notes that key elements of the strategy include acceptance schedules based on the criteria established in the Standard Contract. This statement is ambiguous and suggests that DOE may not deviate from its annualized scheme of oldest fuel first as the order for spent fuel acceptance. Should this be the case, the RSC will be required to go from site-to-site to "pick up" a limited amount of fuel, perhaps as little as a single cask loading. If the RSC is operating under a fixed-price contract, it should be given some latitude in adjusting its acceptance schedule, particularly if it can win the concurrence of the affected contract holders. For example, it has been demonstrated that campaign shipments of spent fuel are the most cost-effective way to move it. Accordingly, DOE should say that the general order of acceptance will comply with the Standard Contract but that other factors will be considered. These include factors such as the potential for savings to the waste fund with campaign shipments; emergency shipments; and the potential for a significant at-reactor spent fuel storage cost savings by removing a small quantity of spent fuel if that reactor is unable to exchange places in the delivery queue.

G. The Spent Nuclear Fuel Verification Plan:

DOE recognizes in Section J, Attachment 4, that "...the Standard Contract must be slightly modified to allow for the implementation of the verification process..." and that the modifications may require amending the Standard Contract. DOE should explain what plans it has for changing the contract and when it plans to do so.

H. Regional Service Contractor (RSC)

It is uncertain how DOE plans to ensure that the performance levels of the Regional Services Contractors in the various regions perform consistently. This is particularly true as commercial generation plants become deregulated and market priced in a competitive environment. It is also unclear why DOE would want to restrict a RSC to no more than two regions, and allow no more than two RSCs in a single region. The Plan should be changed to allow DOE flexibility in being able to select the best performing, competitively priced RSC to be used in any and all regions if practicable to do so. The Plan seems to reinforce sharing of the work rather than using the best and most cost competitive performers. Therefore, we suggest changing Page 7, Section 3.2, Paragraph 3 to read:

"Phase A: Development of site specific and regional servicing plans, followed by authorization of one or more RSC per region (and one RSC for up to four regions if judged to be in the government's best interest) to continue work into Phase B."

In summary, NAESCO believes it is imperative for DOE to resume its Spent Fuel Acquisition and Transport strategy as soon as practicable. We believe that DOE should begin acceptance and transport of spent fuel prior to 2010. In so doing, DOE could take advantage of lessons learned prior to repository startup, and further provide relief to utilities who are running out of spent fuel storage space at their reactor sites.

Very truly yours,

C. H. Heckscher
Purchasing and Contracts Manager

cc: M. G. Morris
T. C. Feignebaum
J. M. Vargas
G. F. St. Pierre
R. J. DeLoach
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hr00022

NUCLEAR ENERGY INSTITUTE

Steven P. Kraft
Director,
Fuel Supply & Used Fuel
Management

December 18, 2000

Mr. James H. Carlson
Office of Acceptance, Transportation and Integration
Office of Civilian Radioactive Waste Management
U.S. Department of Energy
Washington, DC 20006

REFERENCE: Request for Comments on the U.S. DOE Plan for Transportation Cask Fabrication and the Deployment of Waste Acceptance Capabilities

Dear Mr. Carlson:

The Nuclear Energy Institute (NEI)[1] is pleased to submit comments regarding the *"Report to the House Committee on Appropriations, Plan for Transportation Cask fabrication and the Deployment of Waste Acceptance Capabilities."* The report was prepared by the Office of Civilian Radioactive Waste Management on behalf of the Secretary of Energy in response to direction from the House Committee on Appropriations on the FY 2001 Energy and Water Development Appropriations Act. The report presents the Department of Energy strategy for the timely fabrication of transportation casks and deployment of waste acceptance capabilities.

The nuclear industry share the Committee's view and is also recognizes the need for continuing support of the activities associated with waste acceptance and transportation. In this regard, NEI focused on whether the report fulfills the need

[1] NEI is the organization responsible for establishing unified nuclear industry policy on matters affecting the nuclear energy industry, including the regulatory aspects of generic operational and technical issues. NEI's members include all utilities licensed to operate commercial nuclear power plants in the United States, nuclear plant designers, major architect/engineering firms, fuel fabrications facilities, materials licensees, and other organizations and individuals involved in the nuclear energy industry.

for DOE to demonstrate its ability to remove spent fuel from utility reactor sites and to demonstrate its commitment to the timely removal of spent fuel. The

nuclear industry has concluded that the report would need to be improved to provide assurance that DOE has undertaken the actions necessary to demonstrate the required commitment. The NEI comments are contained in the attachment to this letter.

NEI recognizes that some of its comments may involve issues concerning the standard contract, which are the subject of ongoing discussions between contract holders and DOE and litigation. NEI's comments are intended to address only the content of the DOE report in the context of the Committee's request and is not intended to address any contractual matters which are the subject of those discussions or litigation.

We would be pleased to discuss these comments and to respond to any questions DOE may have.

Sincerely,

Steven P. Kraft

Attachment

Cc: The Honorable Ivan Itkin, Director, OCRWM, DOE
Mr. Lake H. Barrett, Deputy Director, OCRWM, DOE

NUCLEAR ENERGY INSTITIUTE
COMMENTS ON THE U.S. DOE
PLAN FOR TRANSPORTATION CASK FABRICATION AND WASTE ACCEPTANCE CAPABILITIES

The nuclear industry supports the DOE objective of contracting with the private industry and utilize marketplace innovation to provide waste acceptance and transportation services. The industry believes that a market-based approach to waste acceptance, transportation, and storage of commercial used nuclear fuel is best for providing a safe, cost-effective, and efficient used nuclear fuel management with reasonable schedules.

Comments on the DOE Strategy

The Committee report required DOE to demonstrate its ability to remove spent fuel from reactor sites, and to demonstrate a commitment to the timely removal of spent fuel. To accomplish this, DOE is required to submit a plan for the timely fabrication and deployment of waste acceptance capabilities. In fulfillment of this requirement, DOE published the *"Report to the House Committee on Appropriations, Plan for Transportation Cask Fabrication and the Deployment of Waste Acceptance Capabilities."* In the report, DOE has presented a "strategy" for the fabrication and deployment of waste acceptance capabilities in the report, not a detailed plan regarding how these activities will be accomplished.

The draft report is primarily a discussion of the history of DOE transportation planning experience and DOE's previous waste acceptance activities, including a summary of its current procurement strategy for acquisition of waste acceptance and transportation services. Central to DOE's strategy is the acquisition of Regional Service Contractors (RSC) as outlined in a draft Request for Proposal (RFP) for Acquisition of Waste Acceptance and Transportation Services issued by DOE in September 1998. DOE's strategy appears to rely on private industry, through the RSC, to put in place detailed plans for fabrication and deployment of waste acceptance capabilities. While the industry endorses the concept of relying on the private sector, there is little in the report to enable the private sector to succeed. Critically, the report does not recognize the substantial challenges, both financial and practical, that will face the potential RSC contractor.

The RSC Concept

The DOE contracting strategy embodied in the Draft RFP represents a unique contracting strategy that seeks to privatize waste transport and use fixed pricing

for both equipment and services. Some of the industry's previous concerns related to the draft RFP and the role of the RSC have been addressed in a limited manner by DOE in the report. However, because many of the industry's more significant concerns regarding the draft RFP remain, further discussion between DOE and the nuclear industry on this subject is warranted.

As an example of these concerns, the draft RFP shifted the majority of the risk to the RSC while delaying payments to the RSC for services until after the service is provided. This RFP contracting strategy may prove to be impractical and uneconomic. The RFP contracting strategy must provide adequate risk sharing to potential contractors in order to obtain cost-effective services for waste acceptance and transportation.

DOE also has experienced problems in past privatization efforts. Coupled with the long history of delays that have characterized the civilian radioactive waste management program, DOE should have contingency plans in place to provide timely waste acceptance and transportation services if this new and complex RFP contracting strategy proves to be impractical or uneconomic.

Timing of Waste Acceptance and Transportation Planning

Implementation of the waste acceptance and transportation services acquisition should not be dependent on a decision on the siting of the federal repository. The DOE obligation to begin waste acceptance and transportation is unconditional and independent of such a decision. Long lead times for transportation equipment design and procurement indicate that the process should begin now. DOE should begin planning and acquisition of waste acceptance and transportation capabilities as soon as possible to demonstrate its commitment to the timely removal of used nuclear fuel from reactor sites. Receipt of used fuel prior to the start of repository operations should be addressed by DOE as a means to accomplish the timely removal of used nuclear fuel from reactor sites.

The DOE strategy relies on contractors, selected in 2002 or later, to plan for the procurement of transport casks and services to support operations in 2010 or earlier. If impediments to timely transport and fuel acceptance, such as cask design changes, are identified in the proposed Phase A planning phase, no time is provided in the DOE strategy to resolve these issues. Given the lead times involved in resolving necessary changes, DOE should begin the waste acceptance and transportation planning process immediately in order to ensure that the proposed schedule can be met. DOE's budget request to Congress for Fiscal Year 2002 and beyond should reflect the necessary funding requirements for the acquisition of waste acceptance and transportation services, and DOE should vigorously pursue these funding requirements during the appropriations process. Likewise, DOE

should reflect the funding necessary to provide for the management of these activities.

Further, DOE should promptly put in place plans for activities that require interfacing with Standard Contract Holders to address issues such as:

- Waste acceptance schedules
- Site service agreements
- Hardware requirements
- Near-site transportation infrastructure
- Standard Contract modifications to the extent necessary

These interfaces can be coordinated and facilitated by NEI.

Transportation Cask Acquisition

Although DOE's reliance on the private sector for the development of used fuel transportation technology is appropriate, its schedule for deployment of the RSC does not include adequate time for modification of current cask designs to support the transport of fuel with high burnups and enrichments, incorporate burnup credit methodology to ensure a more efficient transport system, or for the development of single purpose transport casks.

The DOE strategy for waste acceptance and transportation relies solely on the use of transport and dual-purpose cask systems that have already been licensed by private industry. As currently certified, these transport or dual-purpose systems may not be capable of transporting all of the used fuel that utilities will ship to DOE, even during the initial years of waste acceptance. Current transport and dual-purpose cask technologies have burnup limitations that are lower than U.S. Nuclear Regulatory Commission (NCR) limits on reactor operation. As a result, much of the used fuel with burnup limits within current transport cask limits of 45 GWD/MTU will be placed in dry storage at nuclear power plants by 2010. The balance of used fuel remaining in pool storage at reactor sites will have higher burnups. Many utilities have indicated this used fuel likely will be the first to be shipped form their reactor sites. Hence, DOE must be capable of transporting used nuclear fuel with burnups in excess of 45 GWD/MTU. DOE needs to provide time in its schedule for the design, licensing, and fabrication transport casks for high burnup used nuclear fuel to insure timely acceptance and transportation.

DOE's plan to rely on the private sector technologies must recognize that many utilities will likely direct DOE to accept used nuclear fuel directly from the storage pools rather than dry storage. This approach minimizes dry storage at plant sites and avoids multiple handling of fuel assemblies. The DOE procurement strategy appears to rely primarily on the use of canister-based dual purpose systems for early used fuel transport to the repository. DOE should recognize that:

- DOE, nor its contractor, can specify which fuel assemblies the utility provides for shipment at a particular time as part of waste acceptance and transportation.
- Since three quarters of the used fuel available when the federal facility begins operation will be stored in pools, the cost-effective acceptance of this used fuel from storage pools may result in the need for the private sector to design and license single-purpose transportation casks.
- DOE should accept used nuclear fuel in utility-acquired dual purpose casks or canisters. However, many utilities are likely to direct DOE to accept used fuel directly from the storage pool during the initial phase of waste acceptance.
- DOE and its RSC cannot require that a Contract Holder load spent fuel into dual purpose canister systems prior to acceptance by DOE.
- The use of dual purpose systems, particularly at sites that have not loaded spent fuel into such systems for dry storage, could impose additional burdens on the Contract Holders.

DOE should integrate these items into DOE's planning and ensure that their effect on waste acceptance and transportation is optimized to contribute to an efficient system.

The Phase A planning process must occur early enough to identify the types of transport casks required and allow adequate time for cask design and licensing. DOE should not simply assume that current transport or dual-purpose casks will be suitable to transport used nuclear fuel during the initial years of waste acceptance.

Cask Manufacturing Capability

DOE places great emphasis on the current cask fabrication performance, and merely projects that performance into the future. It should be noted that this performance, while supportive of utility dry storage needs, has not been without problems and resulting delays. DOE should consider the proven likelihood for delay in its contingency planning.

The DOE report only addresses the manufacturing capability with regard to transportation casks. DOE's strategy to rely on private sector technologies for transporting used nuclear fuel could result in the use of canister-based dual-purpose systems for waste acceptance. To transport used nuclear fuel using these systems, canisters would have to be provided to utilities along with the transportation cask. Therefore, the plan should also address canister manufacturing capability. In fact, while the transport casks would be reused, the canisters would not and consequently require fabrication of a much larger number to support used fuel acceptance in a timely manner.

DOE should recognize that cask and canister manufacturing capability to support its waste acceptance and transportation capability will likely occur when utility requirements for at-reactor storage systems is large and expanding. This will be

true during Phase B, Acquisition and Mobilization, and for at least the first five to 10 years of Phase C, Acceptance and Transportation, of the RSC contract.

The cask manufacturers list in Table A-4 is not complete. This list should include manufacturers that have fabricated used fuel casks as well as those that have fabricated used fuel canisters and associated components. Since DOE plans to rely on private sector technologies for the transport of used nuclear fuel, canister-based systems will require the fabrication of transport casks and the dual-purpose canisters and associated hardware.

Other Issues

DOE must conduct its planning for waste acceptance, transportation, and disposal based on the acceptance rates discussed in the report (see footnote on page 12 of the plan). The report only refers to these rates as "... targets and do not create any binding obligation..."

DOE "proposes" accepting utility acquired transportation and storage systems. DOE must agree to accept these utility acquired systems.

In addition, if these utility acquired system components are used by DOE and its contractors, then the utility should be compensated for the avoided costs associated with the use of the utility-supplied equipment.

gmkrieser@NMCCO.com on 12/14/2000 12:01:56 PM

To: Corinne Macaluso/HQ/RWDOE@CRWMS
cc:

Subject: FW: Comments on "Plan for Transport Cask Fabrication and Deployme nt of Waste Acceptance Capabilities

Corinne, my first transmittal didn't go through so I'm trying again.

Gary

-----Original Message-----
From: Krieser, Gary M.
Sent: Thursday, December 14, 2000 10:55 AM
To: 'Corinne.Macaluso@rw.doe.gov.'
Cc: Sellman, Michael B.; Baumann, Michael F.; Farron, Paul
Subject: Comments on "Plan for Transport Cask Fabrication and Deployment of Waste Acceptance Capabilities

Attached please find comments on behalf of the Nuclear Management Company in regard to the subject document. Thank you for the opportunity to provide comments.

Gary Krieser
Director, Nuclear Fuel Services
Nuclear Management Company
(715) 377-3308

<<DOE comments.doc>>

Summary of Comments

Plans for Transportation Cask Fabrication and the Deployment of Waste Acceptance Capabilities

General: The number of RSCs should be minimized to avoid overlap and duplication. Also RSC regions should be determined in a way that, to the extent possible, equalizes waste acceptance (versus using NRC Regions or other such criteria).

Page7, second bullet from the top: Is this bullet referring to dual-purpose casks? If so, we agree. If it is referring to other peripheral systems such as cask handling equipment DOE acceptance of such equipment should be avoided because it would likely involve extensive and unnecessary duplication

Page 8, paragraph 2: It appears that among the products resulting from Phase A is a proposal from each respective contractor for Phases B and C. Is that the intent? It would appear that qualified contractors for Phase A may not necessarily be the same set of qualified contractors for phases B&C. Would it not be appropriate to go through a separate bidding/selection process after Phase A utilizing a request for proposal developed during Phase A.

Page 9, paragraph 4: In this paragraph it indicates that the RSC would "accept the spent nuclear at the utility on behalf of the Department, ...". In this case, does "accept" mean take title? If not, it needs to.

Appendix A - Cask Status and Fabrication Capabilities: The fabrication industry analysis (in Section 4 of the report and this appendix) is inadequate and fails to address some very significant points. First it only discusses two manufacturers. There are others, and these manufacturers should also be assessed. A full accounting of current and future manufacturing capability is critical to analyzing the viability of this program. It could be argued that current manufacturing capability may not even be adequate to respond to the industry's near-term needs.

Second, we must recognize that the cask needs of the RSCs will not be the only needs when this program is implemented. Many reactor sites will still require on-site dry storage facilities and will be procuring casks to maintain sufficient storage space to continue operating. This, of course, will require additional manufacturing capability to respond to the total cask demand. The appendix also discusses potential foreign manufacturers. Again we must recognize that these sources may also be challenged by an increasing world demand for casks.

mhorvath@pplweb.com on 12/15/2000 02:17:39 PM

To: Corinne Macaluso/HQ/RWDOE@CRWMS
cc: rjmckeon@pplweb.com@INTERNET

Subject: Comments on DOE Draft Plan for Waste Acceptance

Corinne, I attached PPL Susquehanna's comments on the Consultation Draft Plan for Transportation Cask Fabrication and the Deployment of Waste Acceptance Capabilities.

Mary-Frances Horvath
(610) 774-6953

PPL SUSQUEHANNA, LLC

COMMENTS ON THE U.S. DEPARTMENT OF ENERGY PLAN FOR THE TRASPORTATION CASK FABRICATION AND THE DEPLOYMENT OF WASTE ACCEPTANCE CAPABILITIES

PPL Susquehanna, LLC (PPL) supports the Department of Energy's (DOE) continued efforts to fulfill its contractual obligation of waste acceptance.

Comments on the DOE Strategy:

3.1 Strategy Formulation

To meet DOE's waste acceptance responsibilities under the Nuclear Waste Policy Act, DOE would retain private industry contractors to provide services and equipment necessary to perform waste acceptance and transportation services. These contractors, referred to as Regional Servicing Contractors (RSCs), would provide services and equipment at fixed prices and would be selected by DOE using a competitive bid process. The DOE contract with the RSC would determine site specific and regional servicing plans. DOE would select one RSC per region, or one RSC per two regions.

Comment: It appears that, in this process, individual utilities are not involved in the vendor selection process. Although the RSC and the individual utility would have opportunity to "determine the best way to service a site," no emphasis is placed on specific utility plant operating processes and procedures. Because the vendor will do work on the utility's plant site, the utility should be involved in some way in the vendor selection process.

3.2 Scope and Description of the Acquisition Plan

DOE would purchase services from RSC's who will perform waste acceptance and transportation functions, complying with NRC and other regulatory regulations; provide training to utility and Federal repository personnel; interface with state and local government agencies; and provide public information. After selection, and after a two-year planning period (Phase A), the RSC would be paid a pre-determined firm-fixed contract price.

Comment: In the planning period, the RSC will be faced with substantial financial challenges to meet the scope as outlined. DOE should consider earlier economic compensation to attract a vendor and allow the vendor to succeed.

Comment: The acquisition plan should probably include a contingency plan in the event that an insufficient number of vendors submits bid proposals.

3.3 Potential Implementation Schedule

The DOE's plan for implementation of the Acceptance and Transportation Services acquisition will await a decision on siting a final repository.

Comment: DOE strategy recognizes that this process would "require long lead times." The strategy should not be further delayed by, or dependent on, the siting of a final repository. DOE should begin acquisition of appropriate waste acceptance and transportation capabilities as soon as possible.

Mary-Frances Horvath
PPL Susquehanna, LLC
Mhorvath@pplweb.com
12/15/00

Portland General Electric Company
Trojan Nuclear Plant
71760 Columbia River Hwy
Rainier, OR 97048
(503) 556-3713

December 14, 2000

VPN-052-2000

James H. Carlson, Acting Director
Office of Acceptance, Transportation and Integration
Office of Civilian Radioactive Waste Management
U. S. Department of Energy
Washington, DC 20585

Dear Mr. Carlson:

Draft Plan for Transport Cask Fabrication and
Deployment of Waste Acceptance Capabilities

We appreciate the opportunity to provide comments on the subject document transmitted by your letter dated December 4, 2000. It is important for DOE and industry to maintain an open dialogue in order to work together to solve the nuclear waste problem that is of concern to both the citizens of Oregon and our nation. In addition to our comments below, we have reviewed the NEI comments on the draft plan and are supportive of them.

We are concerned that the draft plan did not receive the wide distribution warranted for such a document and that the short review time is inadequate for all stakeholders to provide meaningful comments. It did not appear that the draft plan was transmitted to the spent nuclear fuel dry storage and transportation cask vendors, at least not Holtec and NAC, who were contacted. Both companies have transportation cask designs, one of which is licensed by the NRC and one of which has had a license application submitted to the NRC.

Although the draft plan supports the dual-purpose cask design proposed by the vendors and licensed by the NRC, it does not commit to using those systems that are already or soon to be fully available. The plan should clearly truncate duplicative efforts by DOT to develop such systems. We agree that it is appropriate for DOE to compensate utilities for avoided costs associated with the use of utility-supplied equipment such as dual-purpose cask systems.

The draft plan lacks specific criteria for the items identified in the title, i.e., transport cask fabrication and waste acceptance capabilities. There are substantial criteria in 10 CFR 71 for transport casks that should be adopted and implemented by DOE, and as a minimum, referenced in this plan, especially since the draft plan proposes to accept and use those transport casks licensed by the NRC.

Page 5, third paragraph, should provide details, or reference a document that contains the details, of the private sector cask designs, "... that have the capabilities the Department requires for its waste acceptance and transportation needs."

Page 5, fourth paragraph, refers to the mission objectives of OCRWM. It would be helpful if these were provided early in this document so the remainder of the report could demonstrate how the plan supports attaining the mission objectives. It has been more than two years since the Draft Request for Proposal (RFP) referred to in this paragraph was issued and it does not appear to have been finalized, nor have the comments received on it been addressed. Completion of this activity may assist preparation of this report and the development of a strategy. Further, neither this draft plan nor the draft RFP appears to support efforts to assist nuclear power plants to keep operating when they lose storage capacity in their spent fuel pools. This should be an important element of the strategy.

Page 5, fifth paragraph, at the beginning, it is not clear what "This strategy ..." is or what the "... recent private sector advances ..." are. Both points need to be clarified and expanded.

Page 7, second bullet at the top (Section 3.1): This statement is important but the criteria for acceptance by DOE are needed, i.e., what are the criteria for making a determination that the storage/transportation systems are suitable for use at the Federal facility?

Page 13, second paragraph (Section 4): It is not stated whether there is any consideration of the length of time required to license a shipping cask or if it is assumed that the shipping cask has already been licensed. This needs to be clarified.

Page 13, third paragraph (Section 4): The last sentence addresses the fact that many of the dual-purpose cask systems would potentially be used for transport of spent nuclear fuel. Either the criteria should be provided or those cask systems that would or would not be used should be listed.

Page A-4, Table A-4, Cask Fabricators: It would also be helpful and appropriate to list the vendors of Tables A-1, A-2, and A-3 in Table A-4 since the cask designs belong to the vendors, and the cask fabricators listed in Table A-4 build the casks for the vendors. This list in Table A-4 is incomplete as there are many other companies that fabricate casks for the vendors of Tables A-1, A-2, and A-3.

These comments are not intended to and should not be construed at any time as a waiver or release of any claim against the Department of Energy for the breach of its unconditional statutory obligation to take title and dispose of spent nuclear fuel from

commercial nuclear power plants beginning on January 31, 1998. In light of the D. C. Circuit Court decision in Indiana-Michigan Power v. Department of Energy, 88 F.3d 1272 (D. C. Cir. 1996), which held that DOE's duty to begin disposing of nuclear wastes was not conditional on the existence of a permanent repository, we encourage the Department to continue to utilize any and all resources available to develop a program to begin accepting commercial spent nuclear fuel as soon as possible.

For future correspondence to us, please correct the spelling of my name and include a copy to L. G. Dusek, Manager Plant Support, Trojan Nuclear Plant. If you have any questions regarding this information, please contact Mr. Lansing G. Dusek at (503) 556-7409.

Sincerely,

Stephen M. Quennoz
Vice President Nuclear
and Thermal Operations

c: T. O. Meek
K. J. Cox
D. A. Aamodt
S. B. Nichols
A. P. Nelson, NEI
Corinne Macaluso, DOE

css@dairynet.com on 12/18/2000 01:22:10 PM

To: Corinne Macaluso/HQ/RWDOE@CRWMS
cc:

Subject: Comments on Dept. of Energy Plan for Transportation Cask Fabrication and the Deployment of Waste Acceptance Capabilities

Corrine:

Below is the message that was undeliverable on Friday from Private Fuel Storage.

Thanks!
Cindi
----- Forwarded by Cindi S Spears/Dairynet on 12/18/2000 11:57 AM -----

Cindi S Spears
12/15/2000 03:26 PM

To: corinne.macaluso@rw.doe.gov
cc: John D Parkyn/Dairynet@Dairynet
Subject: Comments on Dept. of Energy Plan f Transportation Cask Fabrication and the Deployment of Waste Acceptance Capabilities

Please find attached comments from Private Fuel Storage, LLC

(See attached file: 121500a.doc)

Thanks!

Cindi Spears
for Private Fuel Storage, LLC

December 15, 2000

VIA E-MAIL

Corinne Macaluso
Office of Civilian Radioactive Waste Management
Department Of Energy
Washington, DC 20585

Dear Ms. Macaluso:

SUBJECT: Comments on Department of Energy (DOE) "Plan for Transportation Cask Fabrication and the Deployment of Waste Acceptance Capabilities"

Private Fuel Storage (PFS) appreciates the opportunity to comment on the recently issued Department of Energy (DOE) "Plan for Transportation Cask Fabrication and the Deployment of Waste Acceptance Capabilities."

PFS offers the following comment for consideration:

- PFS believes that the DOE needs to reference the collection of canistered fuel at the Utah site and determine if 1 or up to 4 regional vendors will collect fuel from the site.

Once again, PFS appreciates this opportunity to provide comments on this issue. If you have any questions, please contact me at 608-787-1236, or e-mail jdp@dairynet.com.

Sincerely,

PRIVATE FUEL STORAGE, LLC

John D. Parkyn

John D. Parkyn
Chairman of the Board and CEO

JDP:css
F:\GNR\PFS\LETTERS\121500a.doc

Brian.Gustems@pseg.com on 12/15/2000 05:18:28 PM

To: Corinne Macaluso/HQ/RWDOE@CRWMS
cc: Michael.Mannion@pseg.com@INTERNET

Subject: Comments on the DOE draft Plan for Transportation Cask Fabricatio n and Waste Acceptance Capabilities

PSEG Nuclear, L.L.C. Comments on the U.S. DOE Plan for Transportation Cask Fabrication and Waste Acceptance Capabilities

PSEG Nuclear is very much in favor of DOE's approach of utilizing private industry to provide waste packaging and transportation services. Such an approach will be absolutely essential to meeting the requirements of safety, cost control, and schedule adherance in order to meet the objectives of the program.

This DOE document provides a strategy for development of an actual 'Plan' in Phase I of the document which will then be carried out in subsequent phases of the strategy as described. It appears that the details of the actual plan will be developed during those activities of the first two years. The plan, as developed at the end of phase I, should be the detailed plan that is reviewed by contract holders for comments as this current strategy document does not contain the necessary details to evaluate the feasibility of actual implementation which would occur in Phases II and III.

The list of fabricators in table A-4 does not appear to be complete as there are fabricators not included who we believe have the capability to contribute to the program. Especially in light of the fact that cask component demand for this program will be competing with the needs of the utilities current and future demands on these fabricators.

This strategy should be initiated now and not keyed to a decision on the siting of the federal repository. There does not appear to be adequate time in the schedule to account for inevitable delays which have commonly occurred as a result of technical challenges to this type of technology. There is also no need to wait since developing cask needs, transportation programs, and schedules are completely independant of the issue of where a facility will be located.

Brian Gustems
Principal Nuclear Engineer
PSEG Nuclear, L.L.C.
Phone (856) 339-1278
fax (856) 339-1234

ziobrowskit@ranor.com on 12/05/2000 10:05:18 AM

To: Corinne Macaluso/HQ/RWDOE@CRWMS
cc:

Subject: Draft Plan for Transport Cask Fabrication and Deployment of Waste Acceptance Capabilities

See the attachment per our telephone conversation this morning

Thanks,

John Duffy
Ranor, Inc.

Ms. Corinne Macaluso:

The following information is being submitted for addition to your "Plan for Transport Cask Fabrication and Deployment of Waste Acceptance Capabilities" Draft Plan. Should you have any questions, please feel free to call me at 978-874-0591 or e-mail to jduffy@ranor.com.

Thank you for your assistance.

Consultation Draft – Appendix A
Cask Status and Fabrication Capabilities
Para. 2, page A-1

The main US cask manufacturers are PCC - - - - , RANOR, Inc. Westminster, MA, and UST&D - - - -, - - - - , - - - - -.

RANOR has fabricated the GE2000 transportation cask, under 10CFR71, currently in use by Oak Ridge National Laboratory, the cask used to transport the Yankee Rowe RPV to Barnwell, SC for disposal and TN 32's for Transnuclear. Although these are storage only casks, their construction is similar to that of rail transport casks. They have also manufactured over 100 storage canisters of the NUHOMS® design which are similar to the NUHOMS® storage and transportation canisters. RANOR has the capability to manufacture the entire dual purpose system.

Consultation Draft, page A-4

Name, Address, Phone, Web Site	Casks Recently Built (Partial List)	Facility Size, Employees, Other Notes	Remarks
RANOR, Inc. PO Box 458 Bella Drive Westminster, MA 01473 www.ranor.com	GE-2000 Yankee Rowe PPV Cask TN-32 (storage) NUHOMS® Canisters (storage) Trupact II Transportation Casks	125,000 sq.ft. 170 employees Can fabricate casks & canisters (canisters at a rate of 4 per month currently)	Delivered 1 GE2000 Delivered 1 Yankee Rowe RPV Cask

ROCHESTER GAS AND ELECTRIC CORPORATION • 89 EAST AVENUE, ROCHESTER, N.Y. 14649-0001

TELEPHONE
AREA CODE 716 546-2700

December 15, 2000

Mr. James H. Carlson
Acting Director
Office of Acceptance, Transportation
and Integration
Office of Civilian Radioactive
Waste Management
Department of Energy
Washington, DC 20585

VIA FACSIMILE
VIA U.S. MAIL

Ref.: (1) Letter from J. H. Carlson (DOE) to J. Ortiz (RG&E), dated December 4, 2000.

Dear Mr. Carlson:

This letter is in response to the request for comments described in Reference 1. Rochester Gas & Electric Corp. ("RG&E") wants to thank the DOE for the opportunity to provide comments. As may be expected, most of the language represents common positions developed in consultation with other Standard Contract Holders. In some areas, RG&E has addressed its particular situation as described below.

1. Overall

The nuclear industry, including RG&E, continues to support the DOE objective of contracting with the private industry and utilize marketplace innovation to provide waste acceptance and transportation services.

2. Regional Servicing Contractors (RSC)

In view of past delays in implementing the civilian radioactive waste management program, DOE should have contingency plans in place to provide timely waste acceptance and transportation services if the proposed contracting strategy proves to be impractical or costly.

3. Timing of Waste Acceptance and Transportation Planning

DOE should put in place plans for activities that require interfacing with Standard Contract Holders to address issues such as:

- Waste acceptance schedules
- Site service agreements that include site-specific requirements
- Hardware requirements
- Near-site transportation infrastructure
- Standard Contract modifications to the extent necessary

4. Design Characteristics of Transportation Casks

The proposed schedule for deployment of the RSC does not appear to include adequate time for modification of current cask designs to support the transport of fuel with high burnups and enrichments, and incorporate burnup credit methodology to ensure a more efficient transport system.

The DOE strategy for waste acceptance and transportation relies solely on the use of transport and dual-purpose cask systems that have already been licensed by private industry. As currently certified, these transport or dual-purpose systems may not be capable of transporting the used fuel that Standard Contract Holders plan to make available to DOE during the initial years of waste acceptance. Current transport and dual-purpose cask technologies have burnup limitations that are lower than the burnup limits set forth by the U.S. Nuclear Regulatory Commission (NRC) for fuel used during reactor operation. In 2010, RG&E may direct the DOE to accept used fuel with burnups that are higher than the current limit of 45 GWD/MTU set forth in licenses of transportation casks. Hence, DOE must be capable of transporting used nuclear fuel with burnups in excess of 45 GWD/MTU. DOE needs to provide time in its schedule for private industry to design, license, and fabricate transport casks for used nuclear fuel with high burnups to ensure timely acceptance and transportation.

DOE's current plan to rely on the private sector technologies must recognize that many Contract Holders will likely direct DOE to accept used nuclear fuel directly from the storage pools rather than fuel that has been loaded into dry storage in order to minimize dry storage at plant sites and avoid multiple handling of used fuel assemblies. DOE should also recognize that:

- Neither DOE, nor its contractor, can specify which used fuel a utility provides for shipment at a particular time as part of waste acceptance and transportation.

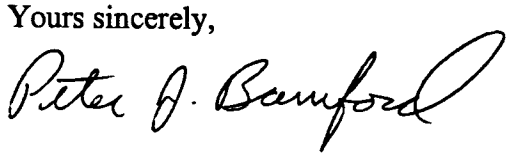
- DOE should accept used nuclear fuel in dual purpose casks or canisters purchased by Standard Contract Holders. However, many Contract Holders, including RG&E, are likely to direct DOE to accept used fuel directly from the storage pool during the initial phase of waste acceptance.

5. Other

DOE proposes the acceptance of transportation and storage systems purchased by the utility. The DOE should accept systems purchased by the utility provided that said systems are certified by the NRC for either transportation or transportation and storage. In addition, if the system components are used by the DOE or its contractors, then the utility should be compensated for the avoided costs associated with the use of the equipment supplied by the utility.

If you have any questions, please contact me at 716/724-8128.

Yours sincerely,



Peter J. Bamford
Manager, Primary/Reactor Engineering
Ginna Station

c: R. C. Mecredy (RG&E)
J. R. Clark (RG&E)
J. P. Ortiz (RG&E)

Steve Redeker

From: Steve Redeker
Sent: Thursday, December 14, 2000 9:26 AM
To: 'Corinne.Macalusco@rw.doe.gov'
Subject: Comments on "Plan for Transport..."

Ms. Corinne Macalusco

The Sacramento Municipal Utility District (SMUD) hereby submits comments on the DOE Consultation Draft of the Report to the House Committee on Appropriations "Plan for Transportation, Cask Fabrication and the Deployment of Waste Acceptance Capabilities, December 2000". The comments, contained in the attached letter, MPC&D 0160, will also be sent hard copy. If you have any questions please contact me at 916-732-4827.

Steve Redeker
Manager, Plant Closure and Decommissioning
Rancho Seco Nuclear Plant

DOE Report
commentsmc1.doc

Sacramento Municipal Utility District

December 14, 2000

MPC&D 00-0160

James H. Carlson, Acting Director
Office of Civilian Radioactive Waste Management
U.S. Department of Energy
1000 Independence Avenue
Washington, DC 20585

SUBJECT: Comments on Consultation Draft DOE OCRWM Report to the House Committee on Appropriations

The Sacramento Municipal Utility District (SMUD) hereby submits these comments on the DOE Consultation Draft of the Report to the House Committee on Appropriations "Plan for Transportation, Cask Fabrication and the Deployment of Waste Acceptance Capabilities, December 2000".

General Comments

As you know, SMUD and DOE entered into a Standard Contract on June 14, 1983, for disposal of spent nuclear fuel (SNF) at the Rancho Seco Nuclear Generating Station. The Standard Contract required DOE to begin disposing of spent fuel no later than January 31, 1998, and for SMUD to pay specified fees to DOE.

SMUD fully performed all of its obligations under the Standard Contract, including payment of over $40 million in fees. Rancho Seco was permanently closed in 1989. However, DOE failed to begin disposing utility spent fuel, in breach of the Standard Contract. SMUD's spent fuel is still being stored at SMUD's expense at the Rancho Seco site.

Following DOE's breach of contract in 1998, SMUD filed a complaint in the United States Court of Federal Claims (No. 98-488C).

On August 31, 2000, the U.S. Court of Appeals for the Federal Circuit issued a ruling in favor of the plaintiffs in two related cases, <u>Maine Yankee Atomic Power Co. v. United States</u>, Nos. 99-5138, -5139, -5140 (Fed. Cir.), and <u>Northern States Power Co. v. United States</u>, No. 99-5096 (Fed. Cir.), determining that:

1. The Government is liable to plaintiffs for its breaches of the SNF Standard Contracts.

2. The SNF cases are properly before the Court of Federal Claims.

3. There is no need to pursue any administrative procedures before the Department of Energy.

4. The DOE administrative procedures could not provide complete relief for all of the damages plaintiffs alleged the government caused by its breach, which include the additional expenses incurred by utilities in "in continuing to store the nuclear waste past the date on which the Department was obligated to remove it."

On December 12, 2000, the U.S. Court of Appeals denied the Government's petition for rehearing (and suggestion for rehearing en banc). Unless the U.S. Supreme Court reverses the Court of Appeals, these decisions will control resolution of liability in SMUD's case. The amount of damages that DOE owes to SMUD for DOE's breach of the Standard Contract will be determined by the Court of Federal Claims after a hearing on the merits.

The Report should be modified to include a discussion of DOE's liability to SMUD and other utilities as a result of its breach of the Standard Contract.

Specific Comments

The "Key Elements of the Strategy" must not limit the full obligations or latitude of the DOE under the Standard Contracts and the Nuclear Waste Policy Act. Bullets seven and nine should be revised as noted below.

Key Element bullet seven states "Acceptance schedules based on the priorities established in the Standard Contract." This is not consistent with the description in section 3.2 third paragraph under "Phase A" which states "Each utility...has a contract with the Department that defines the conditions and basis for the schedule for acceptance and transportation of the utility's spent nuclear fuel. The schedules to be furnished to the RSCs would be based on these contracts." To be consistent, this Key Element should be revised to state "Acceptance schedules based on the standard contract".

Key Element Bullet nine reads "The Department proposes to accept utility-acquired storage/transportation systems, and if they are suitable for use at the Federal facility the Department would be willing to consider compensation for avoided costs associated with the use of utility supplied

equipment." The Department should compensate utilities for any action or equipment which produces avoided costs to the Department relative to transportation to, acceptance at, or use at the Federal facility. It should not limited only to equipment that is "suitable for use at the Federal facility". DOE's objective is to cause efficient and timely movement of the fuel to the Federal facility, thus utilities should be encouraged to take any actions which would support this objective and not be limited only to those that relate to use at the Federal facility. This Key Element should state "The Department proposes to accept utility-acquired storage/transportation systems and will compensate utilities for the DOE avoided costs associated with the use of utility supplied equipment. Similarly the Department would compensate utilities for the DOE avoided costs associated with other actions the utility may take which would reduce required DOE actions or costs."

Section 3.2 Scope and Description of the Acquisition Plan, the primary RSC responsibilities and Phase B descriptions should be revised to be consistent with the Key Element bullet nine to include use of utility supplied equipment.

Table A-3 "Dual Purpose (Storage/Transport) Casks" lists the MP-187. Although part of a dual purpose system and designed for dual purpose storage/transport, the cask itself is currently licensed only for transportation and on site use to transfer canisters to horizontal storage modules. The MP-187 is part of the NUHOMS dual purpose canister based system in which the canister is licensed for storage and transport. Additionally the Remark should be revised to indicate that DOE has title to the additional partially built unit.

Thank you for this opportunity to comment. If you have any questions or concerns, please contact me at 916-732-4827.

Yours truly,

Steve Redeker
Manager, Plant Closure and Decommissioning

SOUTHERN CALIFORNIA
EDISON
An *EDISON INTERNATIONAL*℠ Company

Dwight E. Nunn
Vice President

December 15, 2000

Ms. Corinne Macaluso
Office of Acceptance, Transportation
and Integration
Office of Civilian Radioactive
Waste Management
1000 Independence Avenue, SW
Washington DC 20585

Subject: Request for Comments on DOE's Consultation Draft "Plan for Transportation Cask Fabrication and The Deployment of Waste Acceptance Capabilities"

Dear Ms. Macaluso:

Southern California Edison (Edison) is pleased to submit the attached comments to the Department of Energy (DOE) for the Subject Plan. These comments were prepared as a joint effort by a group of DOE contract holders.

In addition to these comments Edison has the following specific comments:

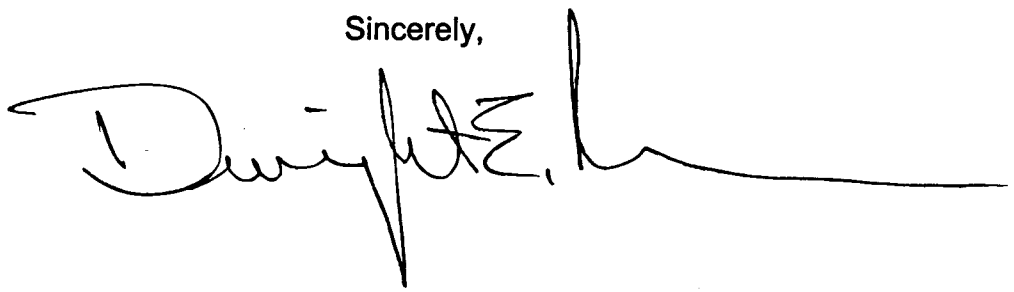
- The Dual-Purpose (Storage/Transport) Casks list in Table A-3 is not complete. The TN-West dual-purpose storage/transport canister, 24PT1-DSC, and storage overpack, Advanced NUHOMS System Horizontal Storage Module (AHSM), with a capacity of 24 PWR assemblies, should be listed. The canister and AHSM have a CofC pending (the SAR has been submitted to the NRC), and a SAR Amendment for using the MP 187 for eventual transport will be submitted to the NRC in January 2001 by TN-West.

- DOE may have opportunities to test and demonstrate its capability by piloting the implementation of its transportation and waste acceptance services and training protocols. The development of one or more private temporary storage facilities may afford DOE with opportunities to provide contract holders and other stakeholders with varying levels of transportation and training support as contemplated in the draft RFP and Section 180 (c) of the Nuclear Waste Policy Act. DOE should assess and seek out these opportunities to demonstrate their capabilities for providing the training and transportation services to contract holders and other stakeholders.

P. O. Box 128
San Clemente, CA 92674-0128
949-368-1480
Fax 949-368-1490

The development and successful implementation of activities necessary to accept spent nuclear fuel at nuclear plant sites and transport and receive it at the repository is a very complex undertaking. Since many aspects of this effort are independent of the repository selection process, Edison believes that this effort should begin immediately and not wait until a decision on siting a repository.

Sincerely,



Comments on DOE's Consultation Draft Plan

The Committee report indicates that DOE needs to demonstrate its ability to remove spent fuel from reactor sites, and to demonstrate a commitment to the timely removal of spent fuel. To accomplish these demonstrations, DOE should submit a plan for the timely fabrication and deployment of waste acceptance capabilities. In fulfillment of this requirement, DOE published the "*Report to the House Committee on Appropriations, Plan for Transportation Cask Fabrication and the Deployment of Waste Acceptance Capabilities*" (Report).

DOE has presented a "strategy" for the fabrication and deployment of waste acceptance capabilities in the Report, not a detailed plan regarding how these activities will be accomplished. It is the industry's view that the Report is not an adequate plan. To be such, it should demonstrate DOE's ability to remove used nuclear fuel from utility sites; and demonstrate a commitment to the timely removal of used nuclear fuel.

The draft Report is primarily a discussion of the history of DOE transportation planning experience and its previous waste acceptance activities, including a summary of its current procurement strategy for acquisition of waste acceptance and transportation services. Central to DOE's strategy is the acquisition of Regional Service Contractors (RSC) as outlined in a draft Request for Proposal (RFP) for Acquisition of Waste Acceptance and Transportation Services issued by DOE in September 1998. DOE's strategy appears to rely on private industry, through the RSC, to put in place detailed plans for fabrication and deployment of waste acceptance capabilities. While the industry endorses the concept of relying on the private sector, there is little in the Report to provide incentives and enable the private sector to succeed. The Report does not recognize the substantial challenges, both financial and practical, that will face the potential RSC contractor.

The RSC Concept

The DOE contracting strategy embodied in the Draft RFP represents a unique and innovative contracting strategy that seeks to privatize waste transport and use fixed pricing for both equipment and services. It is noted that some of the industry's previous concerns related to the draft RFP and the role of the RSC have been addressed in a limited manner by DOE in the Report. However, since many of the industry's more significant concerns regarding the draft RFP remain. Further discussion between DOE and the nuclear industry on this subject is warranted.

As an example of these concerns, the draft RFP shifted the majority of the risk to the RSC while delaying payments for services until after the service is provided. This RFP contracting strategy may not prove to be practical and economic. The RFP contracting strategy must provide adequate risk sharing to potential contractors in order to obtain cost-effective services for waste acceptance and transportation.

It should also be noted that DOE has experienced problems in past privatization efforts and the civilian radioactive waste management program has a long history of delays. DOE should have contingency plans in place to provide timely waste acceptance and transportation services if this new and complex RFP contracting strategy proves to be impractical or uneconomic.

Timing of Waste Acceptance and Transportation Planning

The Report states that the implementation of the Waste Acceptance and Transportation Services acquisition will await a decision on the siting of the federal repository and it should not be so dependent. The DOE obligation to begin waste acceptance and transportation is unconditional and independent of such a decision regardless of what the outcome might be. The transportation equipment design and procurement lead times indicate that the process should begin now. DOE should begin planning and acquisition of waste acceptance and transportation capabilities as soon as possible to demonstrate its commitment to the timely removal of used nuclear fuel from reactor sites. Receipt of spent fuel prior to the start of repository operations should be addressed by DOE as a means to accomplish the timely removal of used nuclear fuel from reactor sites.

The DOE strategy relies on contractors, selected in 2002 or later, to plan for the procurement of transport casks and services to support operations in 2010. If impediments to timely transport and fuel acceptance, such as cask design changes, are identified in the proposed Phase A planning phase, no time is provided in the DOE strategy to resolve these issues. Given the lead times involved in resolving necessary changes, DOE should begin waste acceptance and transportation planning process immediately in order to insure that the schedule outlined in the Report can be met. DOE's budget request to Congress for Fiscal Year 2002 and beyond should reflect the necessary funding requirements for the acquisition of waste acceptance and transportation services and DOE should vigorously pursue these funding requirements during the appropriations process.

DOE should put in place plans for activities that require interfacing with Standard Contract Holders to address issues such as:

- Waste acceptance schedules
- Site service agreements
- Hardware requirements
- Near-site transportation infrastructure
- Standard Contract modifications to the extent necessary

Transportation Cask Acquisition

While DOE's reliance on the private sector for used fuel transportation technology is appropriate, its current schedule for deployment of the RSC does not appear to include adequate time for modification of current cask designs to support the transport of fuel with high burnups and enrichments, incorporate burnup credit methodology to ensure a more efficient transport system, or for the development of single purpose transport casks.

The DOE strategy for waste acceptance and transportation relies solely on the use of transport and dual-purpose cask systems that have already been licensed by private industry. As currently certified, these transport or dual-purpose systems may not be capable of transporting the spent fuel that Contract Holders plan to make available to DOE during the initial years of waste acceptance. Current transport and dual-purpose cask technologies have burnup limitations that are lower than U.S. Nuclear Regulatory Commission (NCR) limits on reactor operation. Much of the spent fuel with burnup limits within current transport cask limits of 45 GWD/MTU will be placed in dry storage at nuclear power plants by 2010. The balance of spent fuel remaining in pool storage reactor sites will have higher burnups and likely will be the first to be transported. Hence, DOE must be capable of transporting used nuclear fuel with burnups in excess of 45 GWD/MTU. DOE needs to provide time in its schedule for private industry to design, license, and fabricate transport casks for high burnup used nuclear fuel to insure timely acceptance and transportation.

DOE's current plan to rely on the private sector technologies must recognize that many Contract Holders will likely direct DOE to accept used nuclear fuel directly from the storage pools rather than fuel that has been loaded into dry storage in order to minimize dry storage at plant sites and avoid multiple handling of used fuel assemblies. The DOE procurement strategy appears to rely primarily on the use of canister-based dual purpose systems for early spent fuel transport to the repository. DOE should recognize that:

- DOE, nor its contractor, can specify which used fuel the utility provides for shipment at a particular time as part of waste acceptance and transportation.
- Since three quarters of the used fuel available when the federal facility begins operation will be stored in pools, the cost-effective acceptance of this used fuel from storage pools may result in the need for the private sector to design and license single-purpose transportation casks.
- DOE should accept used nuclear fuel in Contract Holder-acquired dual purpose casks or canisters. However, many Contract Holders are likely to direct DOE to accept used fuel directly from the storage pool during the initial phase of waste acceptance.
- DOE and its RSC cannot require that a Contract Holder load spent fuel into dual purpose canister systems prior to acceptance by DOE.

- The use of dual purpose systems, particularly at sites that have not loaded spent fuel into such systems for dry storage, could impose additional burdens on the Contract Holders.

The Phase A planning process must occur early enough to identify the types of transport casks required and allow adequate time for cask design and licensing. DOE should not simply assume that current transport or dual-purpose casks will be suitable to transport used nuclear fuel during the initial years of waste acceptance.

Cask Manufacturing Capability

DOE places great emphasis on the current cask fabrication performance and projects that performance into the future. It should be noted that this performance, while supportive of utility dry storage needs, has not been without problems and resulting delays. DOE should consider this opportunity for delay in its contingency planning.

The DOE Report only addresses the manufacturing capability with regard to transportation casks. DOE's current strategy to rely on private sector technologies for transporting used nuclear fuel could result in the use of canister-based dual-purpose systems for waste acceptance. In order to transport used nuclear fuel using these systems, canisters would have to be provided to Contract Holders along with the transportation cask. Therefore, the plan should also address canister manufacturing capability. In fact, while the transport casks would be reused, the canisters would not and consequently require fabrication of a much larger number to support used fuel acceptance in a timely manner.

DOE should recognize that cask and canister manufacturing capability to support waste acceptance and transportation capability will have to compete with utility requirements for at-reactor storage systems. This will be true during Phase B, Acquisition and Mobilization, and for at least the first five to ten years of Phase C, Acceptance and Transportation, of the RSC contract.

The cask manufacturers list in Table A-4 is not complete. This list should include not only those manufacturers that have fabricated used fuel casks but also those that have fabricated used fuel canisters and associated components. Since DOE plans to rely on private sector technologies for the transport of used nuclear fuel, canister-based systems will require the fabrication of not only transport casks but also the dual-purpose canisters and associated hardware.

Other Issues

DOE should adopt officially and conduct its planning for waste acceptance, transportation, and disposal based on the acceptance rates discussed in the Report (see footnote on page 12 of the plan). The Report only refers to these rates as "... targets and do not create any binding obligation..."

DOE "proposes" accepting utility acquired transportation and storage systems. DOE should agree to accept these utility acquired systems as long as the systems are NRC certified for transportation and/or storage. In addition, if the system components are used by DOE and its contractors, then the utility should be compensated for the avoided costs associated with the use of the utility-supplied equipment.

Southern Nuclear
Operating Company, Inc.
P. O. Box 1295
Birmingham, Alabama 35201-1295
Tel 205.992.5000

SOUTHERN COMPANY
Energy to Serve Your World℠

December 20, 2000

NFS-00-137

Mr. James H. Carlson, Acting Director
Office of Acceptance, Transportation and Integration
Office of Civilian Radioactive Waste Management
U.S. Department of Energy
1000 Independence Avenue, SW
Washington, DC 20585

Dear Mr. Carlson:

As requested in your letter of December 4, 2000, Southern Nuclear has completed a review of the consultation draft entitled "Plan for Transport Cask Fabrication and Deployment of Waste Acceptance Capabilities". In response, attached for your use, is a compilation of comments drafted by NEI in consultation with Southern Nuclear and other nuclear utilities. Southern Nuclear endorses the compiled comments originally drafted by NEI with only a few minor modifications/clarifications (shown in bold) to the original comments (which may also have been provided by other utilities in response to your request).

In addition to the attached comments, Southern Nuclear offers the following additional comment. Southern Nuclear believes that the development of one or more private temporary storage facilities, prior to DOE acceptance of used nuclear fuel, may afford DOE with the opportunity to provide contract holders and other stakeholders with varying levels of transportation and training support as contemplated in Section 180(c) of the Nuclear Waste Policy Act. The DOE should assess and seek out these opportunities to demonstrate their capabilities for providing the training and transportation services to contract holders and other stakeholders, and Southern Nuclear recommends that the consultation draft be revised to state that DOE will pursue these opportunities.

Thank you for the opportunity to provide these comments.

Sincerely,

R. L. Cocherell

R. G. Cocherell
Manager, Nuclear Fuel Services

Attachment

NUCLEAR ENERGY INSTITIUTE
COMMENTS ON THE U.S. DOE
PLAN FOR TRANSPORTATION CASK FABRICATION AND
WASTE ACCEPTANCE CAPABILITIES

The nuclear industry continues to support the DOE objective of contracting with the private industry and utilize marketplace innovation to provide waste acceptance and transportation services. The nuclear energy industry believes that a market-based approach to waste acceptance, transportation, and storage of commercial used nuclear fuel is essential to providing a safe, cost-effective, and efficient used nuclear fuel management with reasonable schedules.

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The DOE strategy relies on contractors, selected in 2002 or later, to plan for the procurement of transport casks and services to support operations in 2010. If impediments to timely transport and fuel acceptance, such as cask design changes, are identified in the proposed Phase A planning phase, no time is provided in the DOE strategy to resolve these issues. Given the lead times involved in resolving necessary changes, DOE should begin waste acceptance and transportation planning process immediately in order to insure that the schedule outlined in the Report can be met. DOE's budget request to Congress for Fiscal Year 2002 and beyond should reflect the necessary funding requirements for the acquisition of waste acceptance and transportation services and DOE should vigorously pursue these funding requirements during the appropriations process.

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- **Neither** DOE, nor its contractor, can specify which used fuel the utility provides for shipment at a particular time as part of waste acceptance and transportation.
- Since three quarters of the used fuel available when the federal facility begins operation will be stored in pools, the cost-effective acceptance of this used fuel from storage pools **results in the need for the design and license of single-purpose transportation casks.**
- DOE should accept used nuclear fuel in Contract Holder-acquired dual purpose casks or canisters. However, many Contract Holders are likely to direct DOE to accept used fuel directly from the storage pool during the initial phase of waste acceptance.
- DOE and its RSC cannot require that a Contract Holder load spent fuel into dual purpose canister systems prior to acceptance by DOE.
- The use of dual purpose systems, particularly at sites that have not loaded spent fuel into such systems for dry storage, could impose additional burdens on the Contract Holders.

The Phase A planning process must occur early enough to identify the types of transport casks required and allow adequate time for cask design and licensing. DOE should not simply assume that current transport or dual-purpose casks will be suitable to transport used nuclear fuel during the initial years of waste acceptance.

Cask Manufacturing Capability

DOE places great emphasis on the current cask fabrication performance and projects that performance into the future. It should be noted that this performance, while supportive of utility dry storage needs, has not been without problems and resulting delays. DOE should consider this opportunity for delay in its contingency planning.

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Holders along with the transportation cask. Therefore, the plan should also address canister manufacturing capability. In fact, while the transport casks would be reused, the canisters would not and consequently require fabrication of a much larger number to support used fuel acceptance in a timely manner.

DOE should recognize that cask and canister manufacturing capability to support waste acceptance and transportation capability will have to compete with utility requirements for at-reactor storage systems. This will be true during Phase B, Acquisition and Mobilization, and for at least the first five to ten years of Phase C, Acceptance and Transportation, of the RSC contract.

The cask manufacturers list in Table A-4 is not complete. This list should include not only those manufacturers that have fabricated used fuel casks but also those that have fabricated used fuel canisters and associated components. Since DOE plans to rely on private sector technologies for the transport of used nuclear fuel, canister-based systems will require the fabrication of not only transport casks but also the dual-purpose canisters and associated hardware.

Other Issues

DOE should adopt officially and conduct its planning for waste acceptance, transportation, and disposal based on the acceptance rates discussed in the Report (see footnote on page 12 of the plan). The Report only refers to these rates as "... targets and do not create any binding obligation..."

DOE "proposes" accepting utility acquired transportation and storage systems. DOE should agree to accept these utility acquired systems as long as the systems are NRC certified for transportation and/or storage. In addition, if the system components are used by DOE and its contractors, then the utility should be compensated for the avoided costs associated with the use of the utility-supplied equipment.

jbcarden@tva.gov on 12/18/2000 04:14:27 PM

To: Corinne Macaluso/HQ/RWDOE@CRWMS
cc:

Subject: FW: Review of Plan for Transport Cask Fabrication and Deployment of Waste Acceptance

My computer indicated the following message sent Friday had problems with delivery. Please confirm receipt.

> In response to the December 4, 2000 request from James H. Carlson, TVA has
> completed review of the consultation draft " Plan for Transport Cask
> Fabrication and Deployment of Waste Acceptance Capabilities." TVA
> comments formulated as part of an industry review and discussion are
> provided in the attachment.
>
> <<TVA Comments to DOE Acceptance & Transportation Plan.PDF>>
>
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>
>
>
>
> JBC III
>
> John B. Carden III 423-751-7960 Fax: 423-751-3550 Email:
> jbcarden@tva.gov
>

COMMENTS ON THE U.S. DOE PLAN FOR TRANSPORTATION CASK FABRICATION AND WASTE ACCEPTANCE CAPABILITIES

TVA supports the DOE objective of a market-based approach to waste acceptance and transportation services. A market-based approach is consistent with our objectives for safe, cost-effective, and efficient spent nuclear fuel management with reasonable schedules. TVA participated with the industry in an accelerated review of the DOE report and submits the following comments.

Comments on the DOE Strategy

The Committee report indicates that DOE needs to demonstrate its ability to remove spent fuel from reactor sites and to demonstrate a commitment to the timely removal of spent fuel. To accomplish these demonstrations, DOE should submit a plan for the timely fabrication and deployment of waste acceptance capabilities. In fulfillment of this requirement, DOE published the "*Report to the House Committee on Appropriations, Plan for Transportation Cask Fabrication and the Deployment of Waste Acceptance Capabilities*" (Report).

The draft DOE report presents a "strategy" for the fabrication and deployment of waste acceptance capabilities, not a detailed plan for accomplishing these objectives. An acceptable plan should demonstrate DOE's ability to remove fuel from utility sites in a timely manner.

The draft Report is primarily a discussion of the history of DOE transportation planning experience and its previous waste acceptance activities, including a summary of its current procurement strategy for acquisition of waste acceptance and transportation services. Central to DOE's strategy is the acquisition of Regional Service Contractors (RSC) as outlined in a draft Request for Proposal (RFP) for Acquisition of Waste Acceptance and Transportation Services issued by DOE in September 1998. DOE's strategy appears to rely on private industry, through the RSC, to put in place detailed plans for fabrication and deployment of waste acceptance capabilities. While TVA endorses the concept of relying on the private sector, there is little in the Report to provide incentives and enable the private sector to succeed. The Report does not recognize the substantial challenges, both financial and practical, that will face the potential RSC contractor.

The RSC Concept

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As an example of these concerns, the draft RFP shifted the majority of the risk to the RSC while delaying payments for services until after the service is provided. This RFP contracting strategy may not prove to be practical and economical. The RFP contracting strategy must provide adequate risk sharing to potential contractors in order to obtain cost-effective services for waste acceptance and transportation.

It should also be noted that DOE has experienced problems in past privatization efforts, and the civilian radioactive waste management program has a long history of delays. DOE should have contingency plans in place to provide timely waste acceptance and transportation services, if this new and complex RFP contracting strategy proves to be impractical or uneconomical. Significant RSC performance or financial failures during the waste acceptance and transportation processes could result in large financial and operational burdens at reactors served by the RSC.

Timing of Waste Acceptance and Transportation Planning

The Report states that implementation of the Waste Acceptance and Transportation Services acquisition will await a decision on the siting of the federal repository. Waste acceptance preparation should not be so dependent on repository planning decisions. The DOE obligation to begin waste acceptance and transportation is unconditional and independent of such a decision, regardless of what the outcome might be. The transportation equipment design and procurement leadtimes indicate that the process should begin now. DOE should begin planning and acquisition of waste acceptance and transportation capabilities as soon as possible to demonstrate its commitment to timely removal of spent nuclear fuel from reactor sites. Receipt of spent fuel prior to the start of repository operations should be addressed by DOE as a means to accomplish the timely removal of spent fuel from reactor sites.

The DOE strategy relies on contractors, selected in 2002 or later, to plan for the procurement of transport casks and services to support operations in 2010. If impediments to timely transport and fuel acceptance, such as cask design changes, are identified in the proposed Phase A planning phase, no time is provided in the DOE strategy to resolve these issues. Given the leadtimes involved in resolving

necessary changes, DOE should begin waste acceptance and transportation planning process immediately in order to ensure that the schedule outlined in the Report can be met. DOE's budget request to Congress for Fiscal Year 2002 and beyond should reflect the necessary funding requirements for the acquisition of waste acceptance and transportation services, and DOE should vigorously pursue these funding requirements during the appropriations process.

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Xcel Energy
ENERGY MARKETS

414 Nicollet Mall
Minneapolis, MN 55401-1993

December 15, 2000

James H. Carlson, R-W-44
U.S. Department of Energy
Office of Civilian Radioactive Waste Management
1000 Independence Ave. S.W.
Washington, D.C. 20585

Dear Mr. Carlson:

Xcel Energy (formerly Northern States Power Company) has received the report to the House Committee on Appropriations entitled "Plan for Transportation Cask Fabrication and the Deployment of Waste Acceptance Capabilities" from your office. Xcel has worked with the Nuclear Energy Institute (NEI) to review and provide comments on the plan. We have taken the draft comments provided by NEI and modified them to address our specific concerns regarding the plan. Our comments on the plan are attached.

If you have any questions or wish to discuss our comments please contact me as directed below.

Sincerely,

David G. Horneck
Senior Fuel Buyer
Xcel Energy Inc. (formerly Northern States Power Company)
414 Nicollet Mall (Ren. Sq. 10)
Minneapolis, MN 55401-1927
Phone: (612) 337-2046
Fax: (612) 330-7671
e-mail: David.G.Horneck@xcelenergy.com

Attachment

COMMENTS ON THE U.S. DOE PLAN FOR TRANSPORTATION CASK FABRICATION AND WASTE ACCEPTANCE CAPABILITIES

prepared by

Xcel Energy in conjunction with NEI

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The Committee report indicates that DOE needs to demonstrate its ability to remove spent fuel from reactor sites, and to demonstrate a commitment to the timely removal of spent fuel. To accomplish these demonstrations, DOE should submit a plan for the timely fabrication and deployment of waste acceptance capabilities. In fulfillment of this requirement, DOE published the "*Report to the House Committee on Appropriations, Plan for Transportation Cask Fabrication and the Deployment of Waste Acceptance Capabilities*" (Report).

DOE has presented a "strategy" for the fabrication and deployment of waste acceptance capabilities in the Report, not a detailed plan regarding how these activities will be accomplished. It is the industry's view that the Report is not an adequate plan. To be such, it should demonstrate DOE's ability to remove used nuclear fuel from utility sites; and demonstrate a commitment to a date certain removal of used nuclear fuel.

The draft Report is primarily a discussion of the history of DOE transportation planning experience and its previous waste acceptance activities, including a summary of its current procurement strategy for acquisition of waste acceptance and transportation services. Central to DOE's strategy is the acquisition of Regional Service Contractors (RSC) as outlined in a draft Request for Proposal (RFP) for Acquisition of Waste Acceptance and Transportation Services issued by DOE in September 1998. DOE's strategy appears to rely on private industry, through the RSC, to put in place detailed plans for fabrication and deployment of waste acceptance capabilities. While the industry endorses the concept of relying on the private sector, the Report does not recognize the substantial challenges, both financial and practical, that will face the potential RSC contractor.

The RSC Concept

The DOE contracting strategy embodied in the Draft RFP represents a unique and innovative contracting strategy that seeks to privatize waste transport and use fixed pricing for both equipment and services. It is noted that some of the industry's previous concerns related to the draft RFP and the role of the RSC have been addressed in a limited manner by DOE in the Report. However, since many of the industry's more significant concerns regarding the draft RFP remain un-addressed, further discussion between DOE and the nuclear industry on this subject is warranted.

As an example of these concerns, the draft RFP shifted the majority of the risk to the RSC while delaying payments for services until after the service is provided. This RFP contracting strategy may not prove to be practical and economic. The RFP contracting strategy must provide adequate risk sharing to potential contractors in order to obtain cost-effective services for waste acceptance and transportation.

It should also be noted that DOE has experienced problems in past privatization efforts and the civilian radioactive waste management program has a long history of delays. DOE should have contingency plans in place to provide timely waste acceptance and transportation services if this new and complex RFP contracting strategy proves to be impractical or uneconomic.

Timing of Waste Acceptance and Transportation Planning

The Report states that the implementation of the Waste Acceptance and Transportation Services acquisition will await a decision on the siting of the federal repository. That linkage is not appropriate. The DOE obligation to begin waste acceptance and transportation is unconditional and independent of such a decision regardless of what the outcome might be. The transportation equipment design and procurement lead times indicate that the process should begin now. DOE should begin planning and acquisition of waste acceptance and transportation capabilities as soon as possible to demonstrate its commitment to the timely removal of used nuclear fuel from reactor sites. Receipt of spent fuel prior to the start of repository operations should be addressed by DOE as a means to accomplish the timely removal of used nuclear fuel from reactor sites.

The DOE strategy relies on contractors, selected in 2002 or later, to plan for the procurement of transport casks, rail equipment and services to support operations in 2010. If impediments to timely transport and fuel acceptance, such as cask design changes, rail car accreditation are identified in the proposed Phase A planning phase, no time is provided in the DOE strategy to resolve these issues. Given the lead times involved in resolving necessary changes, DOE should begin waste acceptance and transportation planning

process immediately in order to insure that the schedule outlined in the Report can be met. DOE's budget request to Congress for Fiscal Year 2002 and beyond should reflect the necessary funding requirements for the acquisition of waste acceptance and transportation services and DOE should vigorously pursue these funding requirements during the appropriations process.

DOE should put in place plans for activities that require interfacing with Standard Contract Holders to address issues such as:

- Waste acceptance schedules
- Site service agreements
- Hardware requirements
- Near-site transportation infrastructure
- Standard Contract modifications to the extent necessary

Transportation Cask Acquisition

While DOE's reliance on the private sector for used fuel transportation technology is appropriate, its current schedule for deployment of the RSC does not appear to include adequate time for modification of current cask designs to support the transport of fuel with high burnups and enrichments, incorporate burnup credit methodology to ensure a more efficient transport system, or for the development of single purpose transport casks.

The DOE strategy for waste acceptance and transportation relies solely on the use of transport and dual-purpose cask systems that have already been licensed by private industry. As currently certified, these transport or dual-purpose systems may not be capable of transporting the spent fuel that Contract Holders plan to make available to DOE during the initial years of waste acceptance. Current transport and dual-purpose cask technologies have burnup limitations that are lower than U.S. Nuclear Regulatory Commission (NCR) limits on reactor operation. Much of the spent fuel with burnup limits within current transport cask limits of 45 GWD/MTU will be placed in dry storage at nuclear power plants by 2010. The balance of spent fuel remaining in pool storage reactor sites will have higher burnups and likely will be the first to be transported. Hence, DOE must be capable of transporting used nuclear fuel with burnups in excess of 45 GWD/MTU. DOE needs to provide time in its schedule for private industry to design, license, and fabricate transport casks for high burnup used nuclear fuel to insure timely acceptance and transportation.

DOE's current plan to rely on the private sector technologies must recognize that many Contract Holders will likely direct DOE to accept used nuclear fuel directly from the storage pools rather than fuel that has been loaded into dry storage in order to minimize dry storage at plant sites and avoid multiple handling of used fuel assemblies. The DOE procurement strategy appears to

rely primarily on the use of canister-based dual purpose systems for early spent fuel transport to the repository. DOE should recognize that:

- neither DOE, nor its contractor, can specify which used fuel the utility provides for shipment at a particular time as part of waste acceptance and transportation.
- Since three quarters of the used fuel available when the federal facility begins operation will be stored in pools, the cost-effective acceptance of this used fuel from storage pools may result in the need for the private sector to design and license single-purpose transportation casks.
- DOE should accept used nuclear fuel in Contract Holder-acquired dual purpose casks or canisters. However, many Contract Holders are likely to direct DOE to accept used fuel directly from the storage pool during the initial phase of waste acceptance.
- DOE and its RSC cannot require that a Contract Holder load spent fuel into dual purpose canister systems prior to acceptance by DOE.
- The use of dual purpose systems, particularly at sites that have not loaded spent fuel into such systems for dry storage, could impose additional burdens on the Contract Holders.

The Phase A planning process must occur early enough to identify the types of transport casks required and allow adequate time for cask design and licensing. DOE should not simply assume that current transport or dual-purpose casks will be suitable to transport used nuclear fuel during the initial years of waste acceptance.

Cask Manufacturing Capability

DOE places great emphasis on the current cask fabrication performance and projects that performance into the future. It should be noted that this performance, while supportive of utility dry storage needs, has not been without certain delays. DOE should consider the possibility of delay in its contingency planning.

The DOE Report only addresses the manufacturing capability with regard to transportation casks. DOE's current strategy to rely on private sector technologies for transporting used nuclear fuel could result in the use of canister-based dual-purpose systems for waste acceptance. In order to transport used nuclear fuel using these systems, canisters would have to be provided to Contract Holders along with the transportation cask. Therefore, the plan should also address canister manufacturing capability. In fact, while the transport casks would be reused, the canisters would not and consequently require fabrication of a much larger number to support used fuel acceptance in a timely manner.

DOE should recognize that cask and canister manufacturing capability to support waste acceptance and transportation capability will have to compete with utility requirements for at-reactor storage systems. This will be true during Phase B, Acquisition and Mobilization, and for at least the first five to ten years of Phase C, Acceptance and Transportation, of the RSC contract.

The cask manufacturers list in Table A-4 is not complete. This list should include not only those manufacturers that have fabricated used fuel casks but also those that have fabricated used fuel canisters and associated components. Since DOE plans to rely on private sector technologies for the transport of used nuclear fuel, canister-based systems will require the fabrication of not only transport casks but also the dual-purpose canisters and associated hardware.

Other Issues

DOE should adopt officially and conduct its planning for waste acceptance, transportation, and disposal based on the acceptance rates discussed in the Report (see footnote on page 12 of the plan). The Report only refers to these rates as "... targets and do not create any binding obligation..."

DOE "proposes" accepting utility acquired transportation and storage systems. DOE should agree to accept these utility acquired systems as long as the systems are NRC certified for transportation and/or storage. In addition, if the system components are used by DOE and its contractors, then the utility should be compensated for the avoided costs associated with the use of the utility-supplied equipment.

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December 15, 2000

James H. Carlson, Acting Director
Office of Acceptance, Transportation
And Integration
Office of Civilian Radioactive Waste Management
U.S. Department of Energy
1000 Independence Avenue, SW
Washington, DC 20585

Subject: December 2000 Draft Plan for Transportation Cask Fabrication and the Deployment of Waste Acceptance Capabilities, Report to the House Committee on Appropriations by the Department of Energy, Office of Civilian Radioactive Waste Management

Dear Mr. Carlson:

Yankee Atomic Electric Company (YAEC) and Connecticut Yankee Atomic Power Company (CY) appreciate the opportunity to comment on the December 2000 Draft Report to the House Committee on Appropriations, "Plan for Transportation Cask Fabrication and the Deployment of Waste Acceptance Capabilities." YAEC/CY are both contract holders and owners of permanently shutdown commercial reactors in New England.

We appreciate the efforts of the Committee, the Energy & Water Subcommittee, and Congressman John Olver in directing the Department to specifically address these timely and important issues. YAEC and CY share the Committee's concerns with the Department's waste acceptance and transportation program and schedule. We also fully support the Committee's direction that the Department needs to demonstrate its ability to remove spent fuel and high-level waste from utility sites for federal management and provide for the timely fabrication and deployment of waste acceptance capabilities. Accordingly, YAEC and CY have attached comments on the subject draft plan in response to your request.

Sincerely,

Kenneth J. Heider
Vice President

Attachment

Comments of Yankee Atomic Electric Company and Connecticut Yankee Atomic Power Company on the U.S. Department of Energy Report to the House Committee on Appropriations, "Plan for Transportation Cask Fabrication and the Deployment of Waste Acceptance Capabilities" December 2000

General Comments

Under the Nuclear Waste Policy Act of 1982, and the standard contract developed pursuant to that Act, the Department of Energy is responsible for the removal and shipment of spent nuclear fuel (SNF) and high level radioactive waste (HLW) from utility sites to a federal site for subsequent management and eventual disposal. The United States Court of Appeals has determined that such federal actions were, under both the terms of that statute and contract, to begin in 1998 and that the federal government is in default on its obligations.

Currently, Yankee Atomic Electric Company (YAEC) and Connecticut Yankee Atomic Power Company (CY) (together "Yankee Plants") are engaged in the orderly decommissioning of their plants in Rowe, Massachusetts and Haddam, Connecticut. An essential element of this decommissioning process is the construction of an Independent Spent Fuel Storage Installation (ISFSI) at each site that will enable the dry storage of the SNF/HLW. The construction of these ISFSI's is a direct result of the Department's failure to remove the SNF/HLW from the reactor sites beginning in 1998.

To expedite the removal of the SNF/HLW to a federal site and provide for the timely and cost-effective decommissioning of the plants, YAEC and CY have purchased NRC-licensed dual purpose storage and transport canister systems. There is no legal or practical reason why DOE cannot and should not begin the fabrication and deployment of the transportation system necessary to begin removing the SNF/HLW from the Yankee plants now. There is every reason for DOE to begin to do so now and no basis for further delay in the waste acceptance and transportation program, especially given the multi-year lead times associated with the fabrication of these systems.

YAEC and CY have consistently emphasized the importance of the priority acceptance of spent fuel from permanently shutdown reactors in numerous letters and communications with the Department. We have noted that the standard contract with the Department includes a specific priority acceptance provision for permanently shutdown reactors. Specifically, article VI.B.1.(b) states, "Notwithstanding the age of the SNF and/or HLW, priority may be accorded any SNF and/or HLW removed from a civilian nuclear power reactor that has reached the end of its useful life or has been shut down permanently for whatever reason". We again urge the Department to factor this provision into its waste acceptance plans, and to incorporate the concept of consolidated shipping campaigns as provided for in the recent federal legislation [S. 1287, Sec. 106(e)] that passed both the U.S. Congress and Senate by wide margins this year. Although this legislation was not enacted into law, Section 106 incorporated several provisions that would serve to

significantly enhance the efficiency and cost-effectiveness of the Department's Spent Nuclear Fuel and High Level Waste acceptance program.

The Draft Plan is explicitly linked to the availability of a permanent repository. However, the United States Court of Appeals for the District of Columbia Circuit has twice held that the Department's obligation to remove spent fuel is "unconditional," and cannot be excused by the absence of a repository. Given the urgent need for spent fuel removal, particularly from shutdown plants like the Yankee Plants, and the uncertainty surrounding the timing of the availability of a repository, the Department should not link the timing of its waste acceptance and transportation activities to the availability of a repository.

Finally, given the historical delays in the DOE program and long lead times associated with fabrication of the transportation component of the dual-purpose canister systems currently used by many utilities, state and local communities are concerned that on-site spent fuel storage at reactor sites might become permanent. These concerns have been heightened by DOE's proposals that it be allowed to "take title" to fuel at utility sites.

To address these concerns, DOE must demonstrate its commitment to remove and transport these NRC licensed dual-purpose canister systems – and should immediately implement the program to fabricate and deploy the transport casks and support equipment necessary to implement the waste acceptance program at the sites. Such action will serve to both (1) provide the necessary assurance that DOE fully intends to meet its obligation and remove spent fuel to a federal site, and (2) demonstrate the soundness of the necessary infrastructure to complete this important national objective.

Specific Comments

Section 3. Waste Acceptance and Transportation Capabilities Deployment Plan

3.1 Strategy Formulation

- YAEC and CY agree with the Department's recognition that acquiring and establishing a transportation system infrastructure requires long lead times and we are therefore concerned that DOE is not providing sufficient time in the plan to develop the necessary infrastructure by beginning immediately to do so. While there are many advantages to the proposed market based regional approach associated with cost and efficiency, there is no advantage or basis for not immediately beginning development of the necessary systems and infrastructure.

- We agree with the statement that the current generation of dual-purpose storage and transport systems (such as those NRC licensed and certified systems being utilized at YAEC and CY), have the capabilities the Department requires for its SNF/HLW acceptance and transportation needs. Therefore the Department should, as stated, plan to accept these systems as suitable for use at the federal facility and to fully

compensate utilities for costs incurred associated with these utility supplied systems. Moreover, to address concerns that these containers may need to be opened prior to removal from utility sites, the Department should state definitively that it will accept spent nuclear fuel and high level waste (such as GTCC waste) in casks that are licensed for transport by the NRC.

- Further, the Department should plan to reimburse utilities for costs associated with the timely fabrication and deployment of NRC licensed transportation casks and transport systems that compliment the dual-purpose storage systems being deployed at reactor sites.

- DOE should also incorporate the extensive information base such as the FICA assessment and NSTI studies already performed and refer to and rely on other previous site-specific studies performed and site visits conducted involving detailed site requirements and available transportation routes, etc. We believe that efforts should be made to develop a data base of information from these past studies and assessments to be used for updating the design basis for waste acceptance and transportation rather than wait for the RSC's to perform this work. This could expedite waste acceptance and transport.

- The Department indicates that it intends to be responsible for primary interactions with the affected states, tribes and local units of government to ensure consideration of their input on spent nuclear fuel transportation through their jurisdiction. It should be noted that the utility industry has successfully dealt with many challenges from the states and local governments regarding nuclear fuel transport and related issues, and the Department should take advantage of this experience. The contract holders generally have well established long-standing working relationships with states and local communities within their service territories that will be of significant benefit to any national spent fuel transport program. Therefore, language should be included in the Draft Plan that the Department in consultation with the utilities will be responsible for primary interactions in their region.

3.2 Scope and Description of the Acquisition Plan

- DOE should incorporate into its plan the Standard Contract shutdown reactor priority provision. DOE should also plan for a consolidated shipping campaign strategy to accelerate the removal of all the SNF/HLW from shutdown reactor sites.

- The scope of the plan must include acceptance of HLW, including Greater Than Class C (GTCC) waste. GTCC waste must be removed from reactor sites in order to permit completion of decommissioning. Both the Nuclear Waste Policy Act and the Standard Contract require the Department to accept this material. HLW is defined in the Act and Contract to include, "other highly radioactive material that the Commission (NRC), consistent with existing law, determines by rule requires permanent isolation." The Low Level Waste Policy Amendments Act of 1985 also gives the Department the responsibility and authority for disposition of this material.

The DOE Plan must address management and disposal of this material. It makes no sense to remove almost all of the nuclear waste at a site and leave a small fraction behind. The anticipated quantity of GTCC Waste is tiny relative to spent fuel (estimated to be about 6 % of the total quantity of spent fuel), and is less hazardous because it contains no fuel materials. Because there are no criticality concerns associated with disposal, and because this material does not significantly affect the thermal loading of the repository, we believe that emplacement in the repository should not impact the spent fuel loading. Indeed, it would also avoid the unnecessary expense of developing and opening a second repository just for this small amount of waste. Failure to accept this material on a timely basis will result in the need for continued at-reactor storage at additional costs for no supportable reason. Acceptance of this material along with spent fuel is essential for all permanently shut down plants, now and in the future.

- Table 1 on page 12 of the Draft Plan indicates that the Department will rely mostly on rail casks to transport spent fuel to the Federal repository. The NSTI assessment that was performed a number of years ago indicated at that some trunk lines and rail spurs in close proximity to reactor sites were in need of major repairs. A near-site assessment of rail capability needs to be conducted to evaluate the condition of trunk lines that will be used to access major rail lines. DOE should include provisions for payments from the Waste Fund to cover the repair or restoration of necessary trunk lines and the costs for rail sidings needed to permit intermodal transfer.

3.3 Potential Implementation Schedule

- The DOE Draft Plan does not schedule the first delivery of spent fuel to the repository until the repository is finally operational - anticipated to be in 2010. Under this schedule, DOE will not submit a request for proposal for Regional Services Contractors (RSC) until 2002 - after the decision on siting the repository is made. Awarding contracts is scheduled for 2003. This initial step is called Phase A and will last approximately 2 years. The next step, Phase B, takes place after the RSCs are selected and is viewed as the acquisition and mobilization phase, culminating in the construction and deployment of the transport system in about 2006. Transportation and acceptance referred to as Phase C, i.e., actual performance under the contract, is not scheduled to begin until 2010.

  The phased acceptance program should begin immediately and not be delayed until 2002 as proposed. The long lead times associated with the waste acceptance program involving contracting, equipment acquisition/fabrication and deployment, and transportation activities warrant that DOE begin now – and not wait to demonstrate the ability of DOE to complete this important national objective.

  The earlier program initiation is advantageous as a matter of policy for the Department and as a matter of economics for the ratepayer. Implementing fabrication

and deployment of the transport system for NRC-licensed systems now will serve to resolve early program issues, prevent future construction bottlenecks and ensure a smooth transition to a fully operational system.

- Although the Draft Plan lists only two domestic suppliers of fabrication services for transport equipment, there is significantly more domestic capacity than specified in the Plan. Along with the two fabricators named in the Draft Plan, there are a number of others with either direct or related transport cask manufacturing experience. As noted in the Draft Plan, there are already a number of dual-purpose systems licensed for transport. Recent ones include the canister-based storage systems for several of the permanently shutdown reactor sites in New England. Connecticut Yankee and Yankee Atomic plan to use a transportable dry storage system that has already been licensed by the NRC.